



# AG 3600/ OPTIMA-3600-1 3600-DVTR24N

DIRECT VENTED  
TOP OR REAR VENT  
GAS ROOM HEATER

FOR USE WITH NATURAL GAS OR PROPANE\*

## USERS' INSTALLATION OPERATION AND MAINTENANCE MANUAL

**WARNING:** If the information in this manual is not followed exactly, fire or explosion may result causing property damage, personal injury or loss of life.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

### WHAT TO DO IF YOU SMELL GAS:

- \* Do not try to light any appliance.
- \* Do not touch any electrical switch; do not use any phone in your building.
- \* Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- \* If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

This appliance may be installed in an aftermarket permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

\*Conversion kit required for Propane use

**Installer: Please leave this manual with the appliance owner for future reference**



7116 Beatty Dr  
Mission, BC V2V 6B4  
Canada



200-1905

MAY 2010



## INTRODUCTION

Thank you for purchasing the Optima 3600-1 Zero Clearance Direct Vented Fireplace Gas Heater.

The Optima 3600-1 is one of the most advanced direct vented zero clearance gas heaters on the market. It is designed using the latest technology and manufactured to the highest quality.

Some of the many features are:

- \* True Zero Clearance      No standoffs required.
- \* Heater Classification      It is classified as a heating appliance. Therefore, it can be operated continuously for zone heating.
- \* High Efficiency              It has high efficiency; therefore, less expensive to operate.
- \* Adjustable Flame          The flame aesthetics and heat output can be adjusted to suit the owner's moods and heating needs.
- \* Solid Construction        It is constructed mainly of satin coated, aluminized and galvanized steel for long life and durability.

**Please read the manual carefully prior to installation and operation of the appliance. Proper installation, operation and maintenance of the appliance will provide you with many years of enjoyment.**

**We recommend you record the following information:**

Fireplace Model Number: **3600-DVTR24N**      Serial Number: \_\_\_\_\_

Date of Installation: \_\_\_\_\_

Type of Gas Used by the Fireplace:      ☐ Natural Gas      ☐ Propane

Dealer's Name & Address: \_\_\_\_\_

\_\_\_\_\_

Dealer's Phone Number: \_\_\_\_\_

## TABLE OF CONTENTS

|                                                                     | Page           |
|---------------------------------------------------------------------|----------------|
| <b>Requirements for the State of Massachusetts</b>                  | <b>5</b>       |
| <b>Caution &amp; Safety Information</b>                             | <b>6</b>       |
| <b>General Information</b>                                          | <b>7</b>       |
| <b>Appliance Dimensions</b>                                         | <b>8</b>       |
| <b>Installation Clearances</b>                                      | <b>9</b>       |
| <b>Electrical Connections, Fan System</b>                           | <b>10</b>      |
| <b>Glass Door Removal</b>                                           | <b>11</b>      |
| <b>Log Placement</b>                                                | <b>12 - 15</b> |
| <b>Installation Instructions</b>                                    | <b>16 - 18</b> |
| <b>Optional Wall Switch or Thermostat</b>                           | <b>19</b>      |
| <b>Top / Rear Vent Conversion</b>                                   | <b>20</b>      |
| <b>Allowable Termination Locations</b>                              | <b>21</b>      |
| <b>Approved Vent Components</b>                                     | <b>22 - 23</b> |
| <b>Venting Components - Parts List</b>                              | <b>24</b>      |
| <b>Venting - Rear Vent</b>                                          | <b>25</b>      |
| <b>Venting - Top Vent</b>                                           | <b>26</b>      |
| <b>Horizontal Venting Instructions</b>                              | <b>27</b>      |
| <b>Vertical Venting Instructions</b>                                | <b>28</b>      |
| <b>Operation Instructions - Safety Information</b>                  | <b>29</b>      |
| <b>Operation Instructions - Start Up &amp; Shut Down Procedures</b> | <b>30</b>      |
| <b>Maintenance</b>                                                  | <b>31</b>      |
| <b>Troubleshooting</b>                                              | <b>32 - 33</b> |
| <b>Servicing</b>                                                    | <b>34 - 35</b> |
| <b>Important Information</b>                                        | <b>36</b>      |
| <b>Replacement Parts List</b>                                       | <b>37 - 38</b> |
| <b>Archgard Warranty</b>                                            | <b>39</b>      |
| <b>Warranty Registration Card</b>                                   | <b>41</b>      |

**STATE OF MASSACHUSETTS REQUIREMENTS****5.08: Modifications to NFPA-54, Chapter 10**

(2) Revise 10.8.3 by adding the following additional requirements:

(a) For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

1. **INSTALLATION OF CARBON MONOXIDE DETECTORS.** At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gasfitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gasfitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors

a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

2. **APPROVED CARBON MONOXIDE DETECTORS.** Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

3. **SIGNAGE.** A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, **"GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS"**.

4. **INSPECTION.** The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

(b) **EXEMPTIONS:** The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

1. The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and

2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

(c) **MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM PROVIDED.** When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

1. Detailed instructions for the installation of the venting system design or the venting system components; and

2. A complete parts list for the venting system design or venting system.

(d) **MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED.** When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

1. The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and

2. The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

(e) A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

**For the State of Massachusetts, installation and repair must be done by a plumber or gasfitter licensed in the Commonwealth of Massachusetts.**

**For the State of Massachusetts, flexible connectors shall not exceed 36 inches in length.**

**The State of Massachusetts requires the installation of a carbon monoxide alarm in accordance with NFPA 720 and a CO alarm with battery back up in the same room where the gas appliance is installed.**

**CAUTION / SAFETY INFORMATION**

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperature and stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance.

Clothing or other flammable material should not be placed on or near the appliance.

Any parts removed or opened for servicing of the appliance must be properly replaced prior to operating the appliance.

The appliance must be inspected before use and at least annually by a qualified service person. More frequent cleaning maybe required due to excessive lint from carpeting, bedding material, etc. It is imperative that the control compartments, burners and circulating air passageways for the appliance be kept clean.

Venting terminals shall not be recessed into a wall or siding.

This gas appliance must not be connected to a chimney flue serving a separate solid fuel burning appliance.

**FOR YOUR SAFETY** - Do not install or operate your Archgard Optima 3600 Direct Vent Gas Fireplace without reading and understanding this manual. Any installation or operational deviation from this instruction manual voids the Archgard Industries Warranty and may prove hazardous.

This appliance must be installed by a qualified gas installer and the installation must conform to the installation codes.

Provide adequate clearance around air openings of the appliance.

Never obstruct front openings.

Provide adequate clearances for proper operation and servicing of the appliance.

This appliance must be properly connected to an approved venting system and must not be connected to a chimney flue serving a separate solid fuel burning appliance.

## GENERAL INFORMATION

### APPLIANCE CERTIFICATION

This appliance is tested and certified to the following US and Canadian gas appliance standards.

- ANSI Z21.88b-2003 / CSA 2.33b-2003 Vented Gas Fireplace Heaters,
- CAN/CGA-2.17-M91 Gas-Fired Appliance for Use at High Altitudes

Please contact Archgard Industries Ltd., if you have any questions regarding the certification of this appliance.

### INSTALLATION CODES

This appliance must be installed by a qualified gas appliance installer. The installation must conform with the local codes or, in the absence of local codes, with the current National Fuel Gas Code, ANSI Z223.1/ NFPA 54, in the US or Installation Code, CSA-B149.1, in Canada. Electrical connections and grounding must be in accordance with local codes, if any, if not, follow the current CAN/CSA C22.1 in Canada and ANSI/NFPA 70 in the US. This appliance is certified for installation in a bedroom or a bedsitting room. This appliance is only for use with the type of gas indicated on the rating plate and may be installed in an aftermarket, permanently located, manufactured (mobile) home where not prohibited by local codes. See owner's manual for details. This appliance is not convertible for use with other gases, unless a certified kit is used. This appliance must be installed in accordance with the current Standard CAN/CSA Z240 1411, *Mobile Housing*, or with the *Manufactured Home Construction and Safety Standard Title 24 CFR, Part 3280*, or when such a standard is not applicable, *ANSI/NCSBCS A225.1/NFPA 501A, Manufactured Home Installations Standard*. Only for direct discharge without duct connection. This appliance must be direct vented using listed Simpson Dura-Vent components.

**We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists**

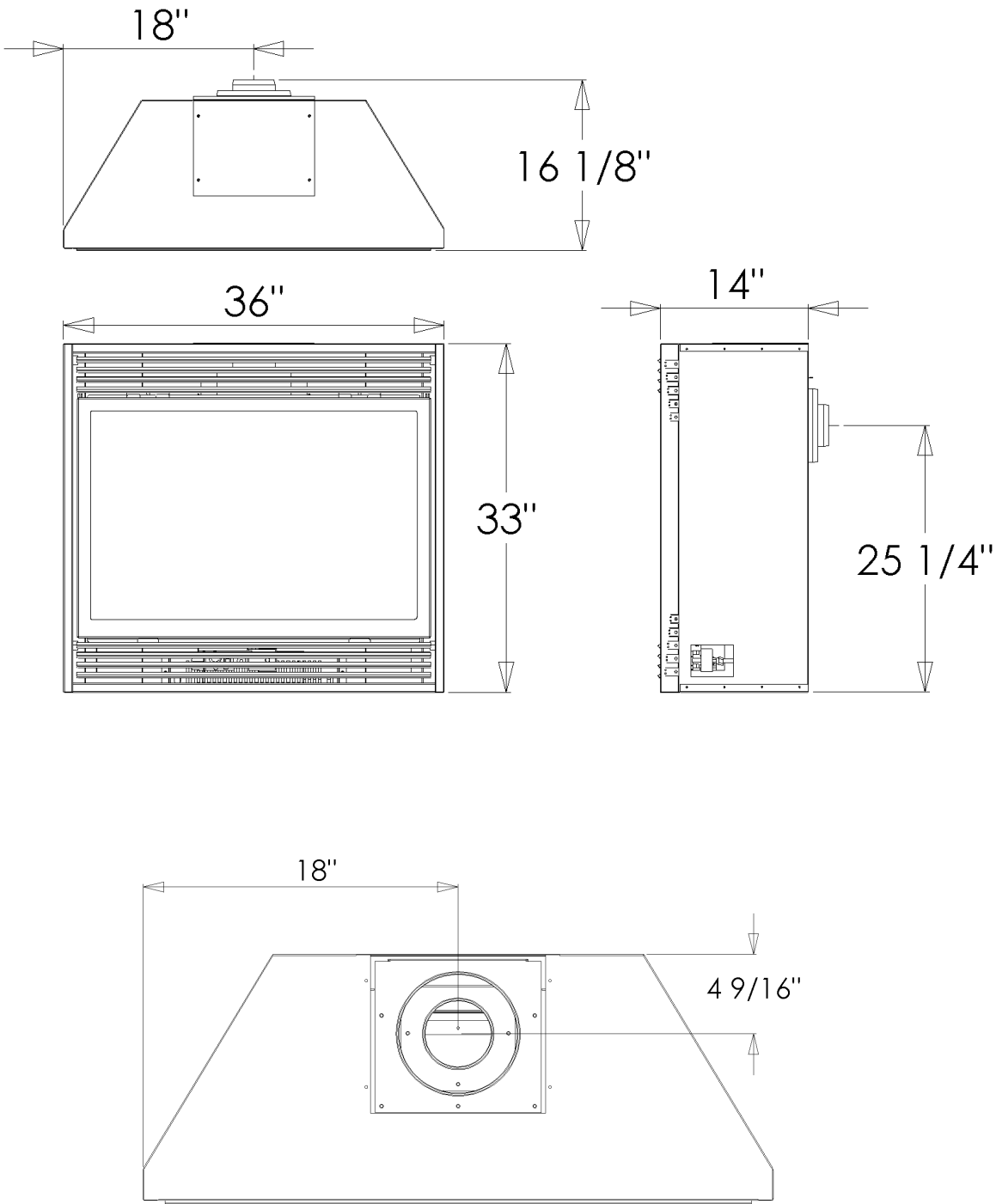
### SPECIFICATIONS

|                                                             | Natural Gas (NG)                           | Propane (LP)                               |
|-------------------------------------------------------------|--------------------------------------------|--------------------------------------------|
| <b>Manifold Pressure</b>                                    | 1.7-3.5 in. W.C. (0.4-0.9 kPa)             | 6.5-10.0 in. W.C. (1.6-2.5kPa)             |
| <b>Min. Supply Pressure for Purpose of Input Adjustment</b> | 4.5 in. W.C. (1.1 kPa)                     | 11.0 in. W.C. (2.7 kPa)                    |
| <b>Orifice Size</b>                                         | #43 DMS                                    | #54 DMS                                    |
| <b>Nominal Input Rating</b>                                 | 17,000 - 24,000 BTU/hr<br>(4.98 - 7.03 kW) | 19,000 - 24,000 BTU/hr<br>(5.57 - 7.03 kW) |
| <b>Altitude</b>                                             | 0 - 4,500 ft. (0 - 1372 m)                 | 0 - 4,500 ft. (0 - 1372 m)                 |
| <b>Primary Air Opening</b>                                  | closed                                     | 25% open                                   |

### HIGH ALTITUDE INSTALLATION

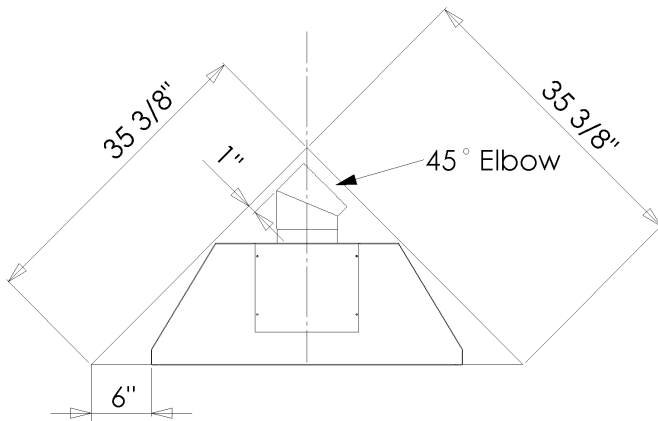
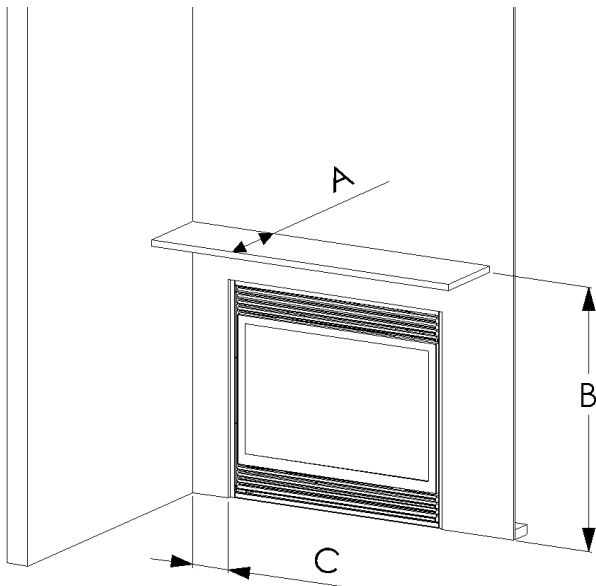
When installing this appliance beyond 4500 ft. (1372 m) above sea level, the appliance must be properly de-rated and installed according to local codes, in the absence of local codes, with the current National Fuel Gas Code, ANSI Z223.1/ NFPA 54, in the US or Installation Code, CSA-B149.1, in Canada.

APPLIANCE DIMENSIONS



INSTALLATION CLEARANCES

MANTLE & SIDEWALL CLEARANCES



CORNER FRAME DIMENSIONS

| Mantle Height from Floor (B) | Mantle Depth (A)  |
|------------------------------|-------------------|
| 40" (1016 mm)                | 12" (305 mm)      |
| 39" (991 mm)                 | 10-5/16" (262 mm) |
| 38" (965 mm)                 | 8-9/16" (217 mm)  |
| 37" (940 mm)                 | 6-7/8" (175 mm)   |
| 36" (914 mm)                 | 5-1/8" (130 mm)   |
| 35" (889 mm)                 | 3-7/16" (81 mm)   |
| 34" (864 mm)                 | 1-11/16" (43 mm)  |

- Sidewall clearance (C) = 6" (305 mm) from edge of unit
- Unexposed Back & Sidewalls = 0"
- Internal Ceiling = 40" (1016 mm) from floor
- Floor = 0"
- Mantle = See Chart
- Vertical Vent = 1" (25 mm) to outside surface
- Horizontal Vent = 1" (25 mm) to outside side and bottom surface
- Horizontal Vent = 2" (50 mm) to outside top surface.

**Note:** Check local codes for floor requirements. This fireplace is suitable for installation on a combustible surface.

### ELECTRICAL CONNECTIONS, FAN SYSTEM

**WARNING:** Before starting, make certain the power supply is turned OFF.

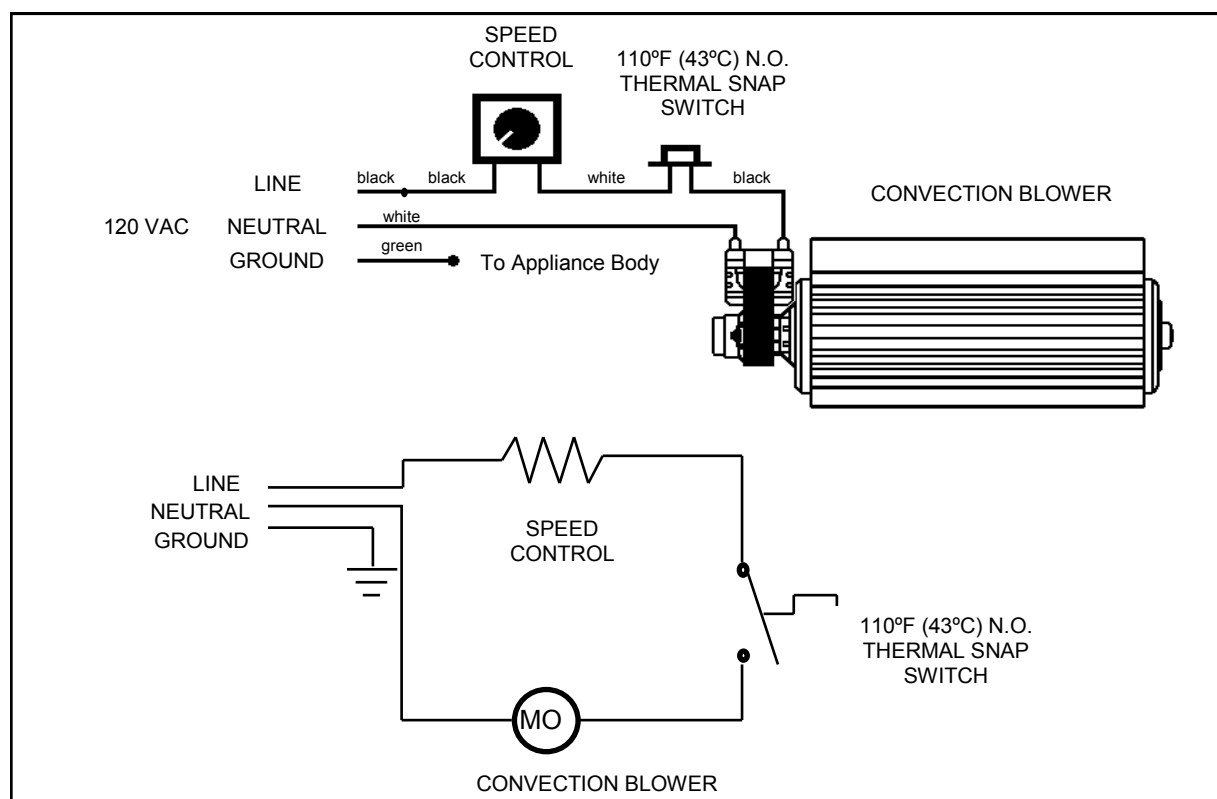
The Optima 3600-1 comes complete with a temperature activated fan and rheostat installed and wired to an internal junction box. The heat sensor is factory set to close the circuit to the fan speed control at 110° F (43° C) and will turn off the fan when the temperature falls below 80° F (27° C).

**Have a qualified electrician** run a 120VAC supply line to the lower right side of the fireplace before installing the appliance. There should be 18" (460mm) of the supply line free for ease of connection to the appliance. Connect the electrical supply line to the appliance at the same time the gas line is being connected to the appliance.

**NOTE:** This appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the **National Electrical Code, ANSI/NFPA 70**, or the **Canadian Electrical code, CSA C22.1**.

Remove or open the bottom (louver) grill. Remove the junction box cover. Run the line into the right side of the appliance through the hole in the rear of the junction box and hold with a standard 7/8" (22 mm) clamp. Connect the (black) supply conductor to the free black conductor from the speed controller with a marrette type wire connector. Connect the 'neutral' white supply conductor to the free white conductor from the fan with a marrette-type wire connector. Connect the 'ground' (green or bare) conductor to the ground screw in the junction box. Replace the junction box cover. A BX connector or other suitable approved wiring strain relief must be installed on the junction box.

### WIRING DIAGRAM



## GLASS DOOR REMOVAL

### Removing the Glass Door

- ❖ Remove the top & bottom louvers (or optional front).
- ❖ Unhook the door latches found on the bottom of the firebox - shown below
- ❖ Carefully lift and remove the door.
- ❖ Place the door at a safe location where it cannot be scratched or damaged.
- ❖ If the glass door is damaged, it must be replaced with another glass door certified for this appliance.
- ❖ Replacement glass doors are available through your Archgard dealer (See Replacement Parts page 36)

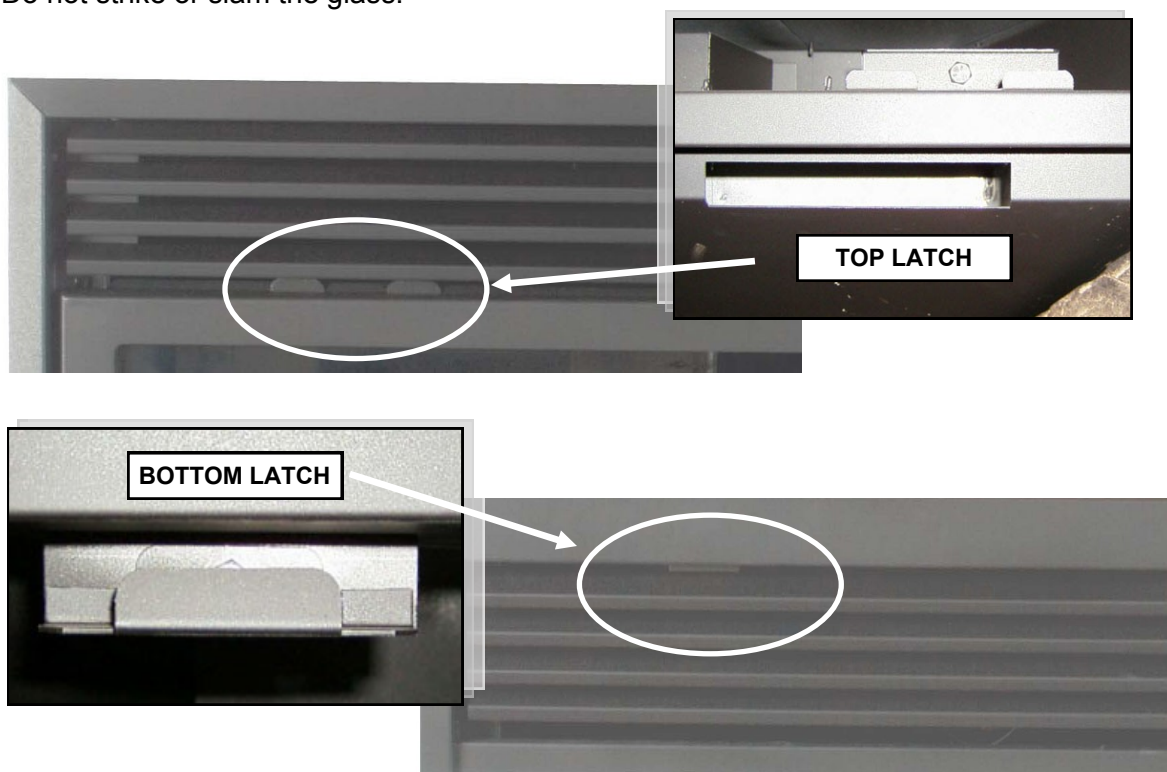
### Replacing the Glass Door

- ❖ Check the condition of the glass and the gasket before installing door.
- ❖ Carefully hook the door onto the 4 tabs on the top of the firebox. (2 left, 2 right)
- ❖ Connect the door latches, at the bottom of the door, by pulling forward on the 2 bottom latches and hooking them over the lower door frame flange.
- ❖ Install the top & bottom louvers (or optional front).

If the glass has been damaged contact your dealer and replace the door assembly with a new assembly provided by your dealer.

### WARNING:

- ❖ Do not attempt to remove the glass door when the appliance is hot.
- ❖ Do not abuse the glass door.
- ❖ Do not strike or slam the glass.



## LOG PLACEMENT

The Archgard pan burner and fiber logs are designed to give a realistic fire package, and are created to maintain their appearance from the day they were originally installed. Care must be given when first installing the logs and when removed for servicing, as they can be damaged or broken if not handled properly.

After opening the log set package, inspect the logs to ensure that no damage has occurred inside the package. Please report any damage immediately to your Authorized Archgard Dealer.

Gas and vent connections must be made before installing the logs and embers on the pan burner.

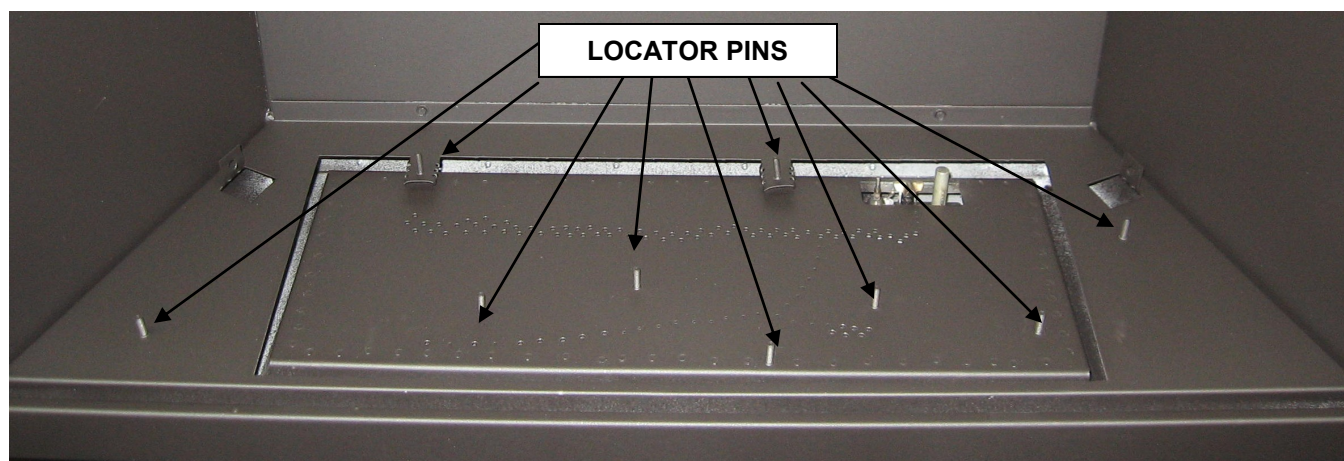
**NOTE:** Improper placement of logs may cause sooting on the internal parts and glass, and will not be covered under warranty. Do not use broken or damaged logs.

**WARNING:** Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or

Refer to the pictured instructions on the following pages that will show you how to correctly place the logs. The bottom of each log has a code stamped on it that can be used as a reference to help locate the correct log.

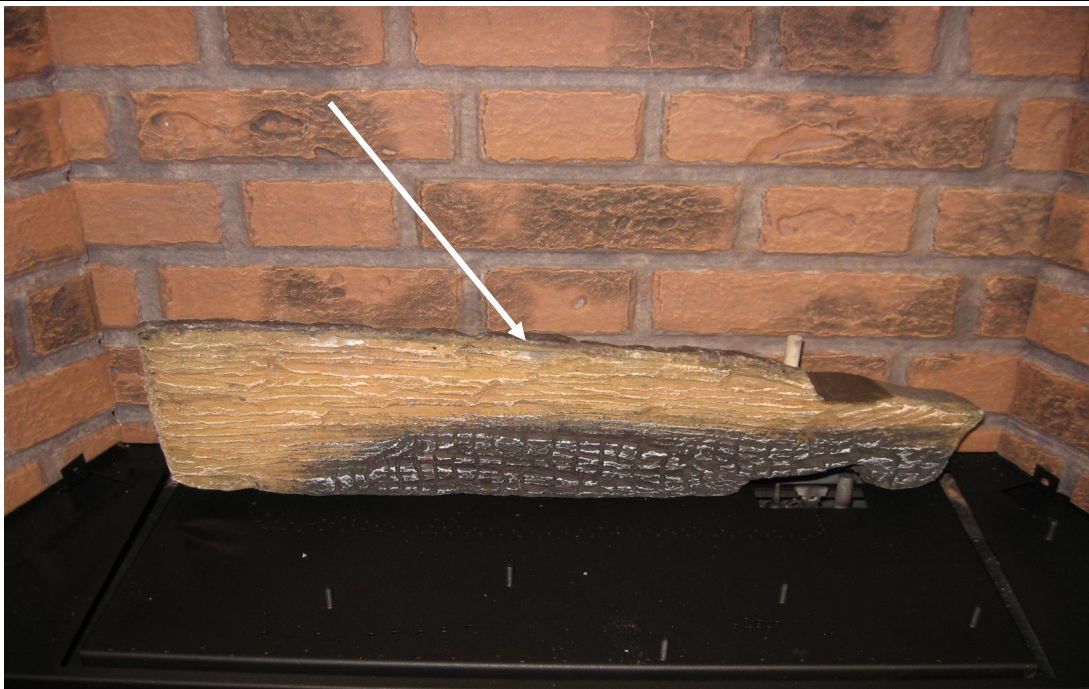
**IMPORTANT:** Pins & holes must be aligned with logs & burner.

### LOCATOR PINS ON BURNER SHOWN



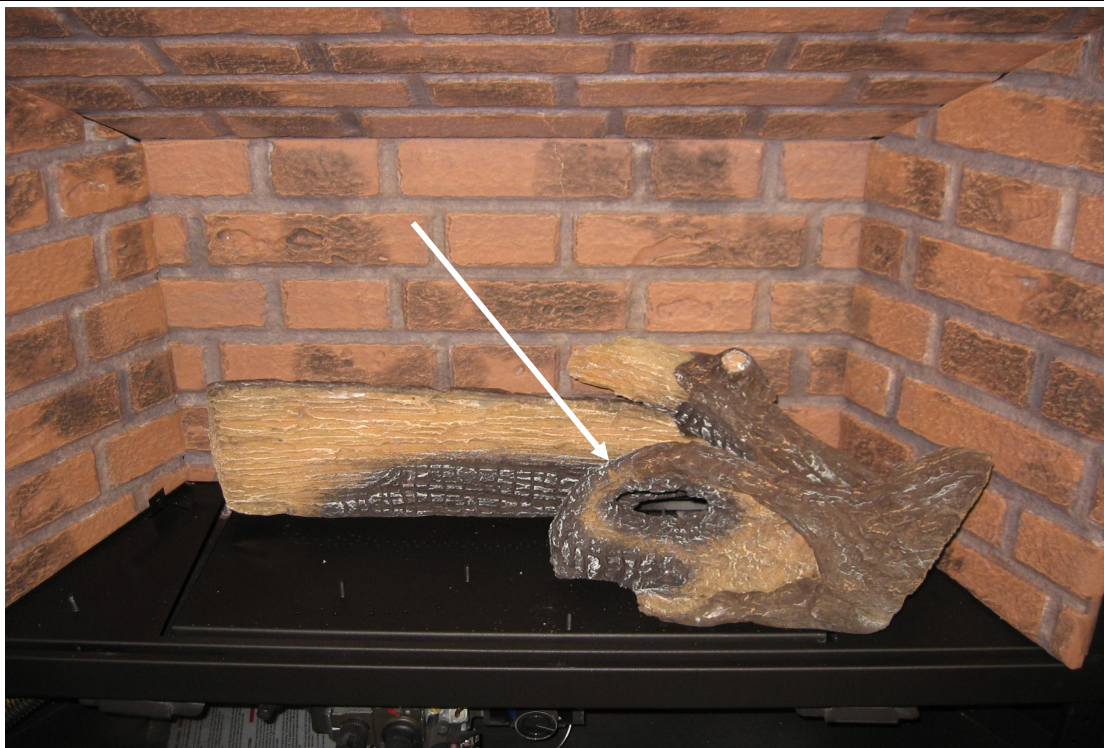
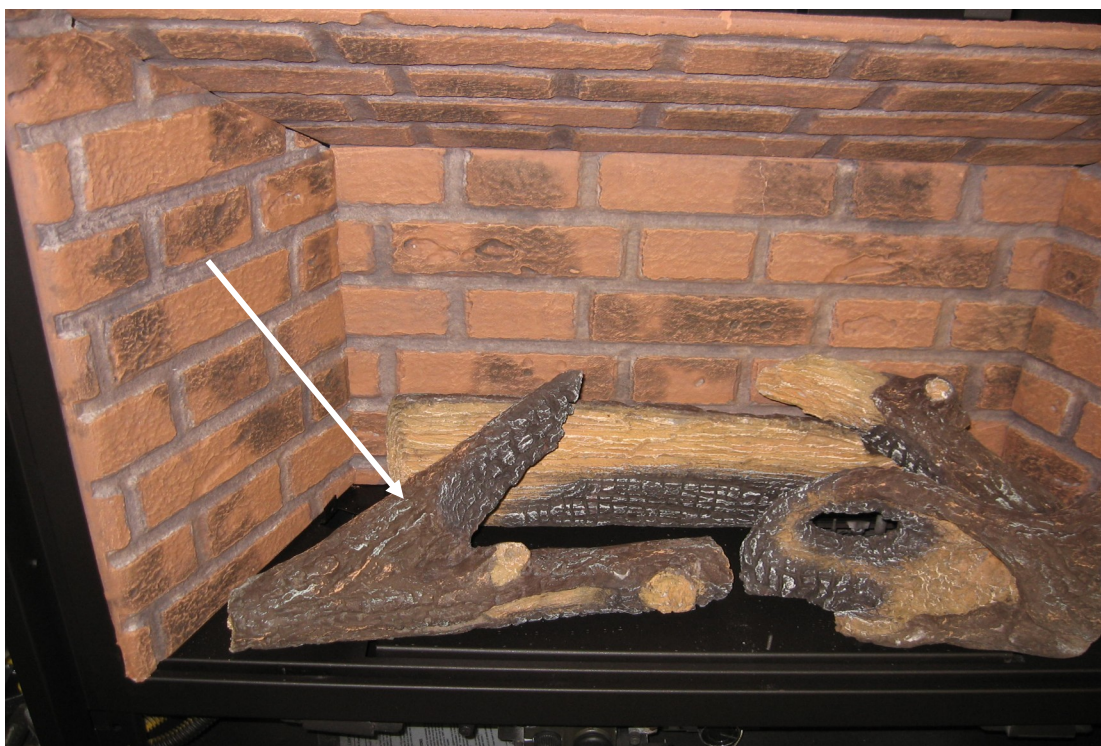
**LOG PLACEMENT - CONTINUED**

**STEP 1 - PLACE REAR LOG ON PINS AND BURNER AS SHOWN** (Shown with optional brick liner)



**STEP 2 - PLACE RIGHT REAR LOG ON PIN AND LOG AS SHOWN** (Shown with optional brick liner)



**LOG PLACEMENT - CONTINUED****STEP 3 - PLACE FRONT RIGHT LOG ON PINS AND BURNER AS SHOWN****STEP 4 - PLACE FRONT LEFT LOG ON PINS AS SHOWN**

(Shown with optional brick liner)

**LOG PLACEMENT - CONTINUED****STEP 5 - PLACE LEFT REAR LOG AS SHOWN****STEP 6 - PLACE FRONT CENTER LOG AS SHOWN**

(Shown with optional brick liner)

**LOG PLACEMENT - CONTINUED**

**STEP 6 - PLATINUM EMBERS SHOULD BE PLACED ON BURNER AS SHOWN**



(Shown with optional brick liner)

## INSTALLATION INSTRUCTIONS

### PRECAUTIONS

- ❖ This appliance must be installed by a qualified gas installer and the installation conform to the installation codes.
- ❖ This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate ventilation air. Provide adequate clearance around air openings of the appliance. Never obstruct front openings.
- ❖ Provide adequate clearances for proper operation and servicing of the appliance.
- ❖ This appliance must be properly connected to a venting system.
- ❖ This appliance must NOT be connected to a chimney flue serving a solid-fuel appliance.

### LOCATING GAS FIREPLACE

The venting system of this appliance must be installed in any location that is free of plumbing, electrical wiring and heating or air conditioning ducts. Select a location that is accessible for venting. See the ALLOWABLE TERMINATION LOCATIONS - page 20, in this manual. When the appliance is installed directly on carpeting, vinyl tile or other combustible material, other than wood flooring, the appliance **must** be installed on a metal or wood panel extending the full width and depth of the appliance.

### VENT TERMINATION LOCATION

1. Establish a suitable vent termination location. (See ALLOWABLE TERMINATION LOCATIONS - page 20)
2. In heavy snowfall areas make sure vent termination is located where it can not be blocked by snowfall or snow from snow removal equipment.
3. Locate vent termination away from plants, bushes or any other object on or near the vent termination that will interfere or obstruct the air flow around it.
4. DO NOT recess vent termination into walls, sidings or planters.
5. Vent terminations located below 7 ft (2130 mm) from grade level or anywhere that it is a burn hazard to the public, such as patios and balconies, must be protected with an approved termination cage.

The fireplace may be installed in any location that maintains proper clearances to combustibles, air conditioning ducts, electrical wiring and plumbing. Select a location that is accessible for venting. See section Allowable Termination Locations listed in this manual. When the appliance is installed directly on carpeting, vinyl tile or other combustible materials, other than wood flooring, the appliance must be installed on metal or wood panel extending the full width and depth of the appliance.

## INSTALLATION INSTRUCTIONS

### GAS CONNECTIONS

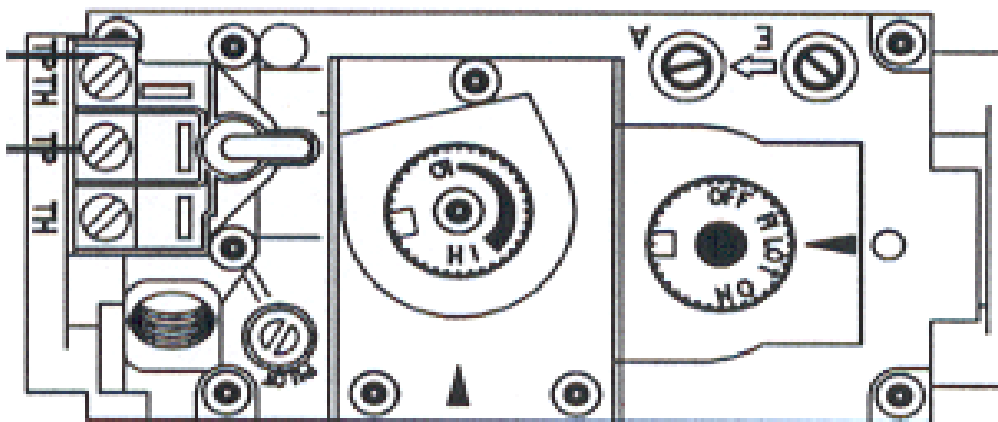
Have your gas supplier or a qualified gas fitter run a gas supply line into the gas fireplace. The line must be properly sized and fitted according to the installation codes. Upstream of the supply connection, the fitter shall provide a manual shut-off valve.

**CAUTION:** The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure-testing of that system at test pressures in excess of  $\frac{1}{2}$  psig (3.5 kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure-testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$  psig (3.5 kPa). Failure to do so will damage the appliance's gas valve. Such damage is not covered by the manufacturer's warranty.

### CHECKING INLET & OUTLET GAS PRESSURE

1. Open the lower grills.
2. The pressure test taps are located on the valve. The taps are located in the gas valve front face. The inlet is marked 'IN' and the outlet is marked 'OUT'. (See Fig.1)
3. Loosen the set screw inside the tap with a  $\frac{1}{8}$ " (3 mm) wide flat screw driver.
4. Connect a  $\frac{1}{4}$ " (6 mm) rubber tube to the tap post and a manometer.
5. Verify the readings obtained are within specs (as shown on the appliance rating plate)
6. Be sure to tighten the set screw inside the tap after you are finish taking pressure readings.
7. Check for leaks.

Fig.1



## INSTALLATION INSTRUCTIONS

### GAS CONNECTIONS - CONTINUED

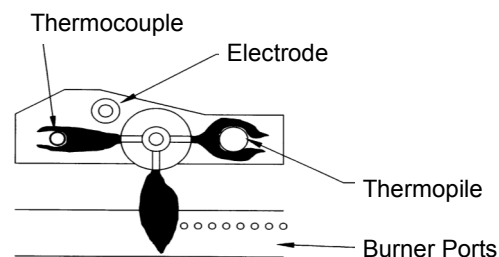
The minimum permissible gas supply pressure is 4.5 in. w.c. (1.12 kPa) for natural gas and 11.0 in. w.c. (2.74 kPa) for propane. Maximum gas supply pressure should never exceed 14.0 in. w.c. (3.48 kPa) or ½ psi. for both natural gas and propane. **BE SURE TO TIGHTEN THE PRESSURE TAP SET SCREW AFTER CHECKING THE PRESSURE.**

Before connecting the appliance to the gas supply line, double check that the appliance you have purchased is designed for the gas type you are using. The gas type markings are located on the certification label and also on the appliance's gas valve.

Adequate clearance for proper installation and checking of the gas connections must be provided. All gas connections must be checked for gas leaks.

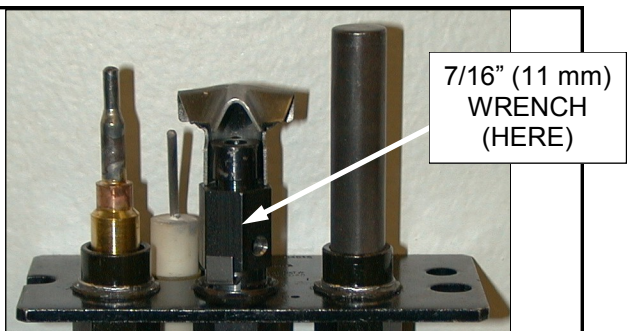
### CHECKING & ADJUSTING PILOT

The pilot flame should have the characteristic as shown in the illustration to the right. The flame should not have yellow tips but should engulf the thermocouple and thermopile. It can be adjusted by turning the screw marked "pilot" on the control valve.



### CONVERTIBLE PILOT ORIFICE

The pilot assembly is convertible to the type of gas being used, simply unscrew the body by using a 7/16" (11 mm) wrench turn ¼ open then push the small metal tab across to the other side of the body and retighten. **Call your local Authorized Archgard Dealer to purchase the correct fuel conversion kit for your gas appliance.**



### AIR SHUTTER ADJUSTMENT



**CAUTION: MUST BE DONE WHEN APPLIANCE IS COLD.**

Remove / open lower louvre, slightly loosen the wing nut located under the firebox near the centre at the rear. Push back lever for cleaner burn; tab forward for a richer burn.

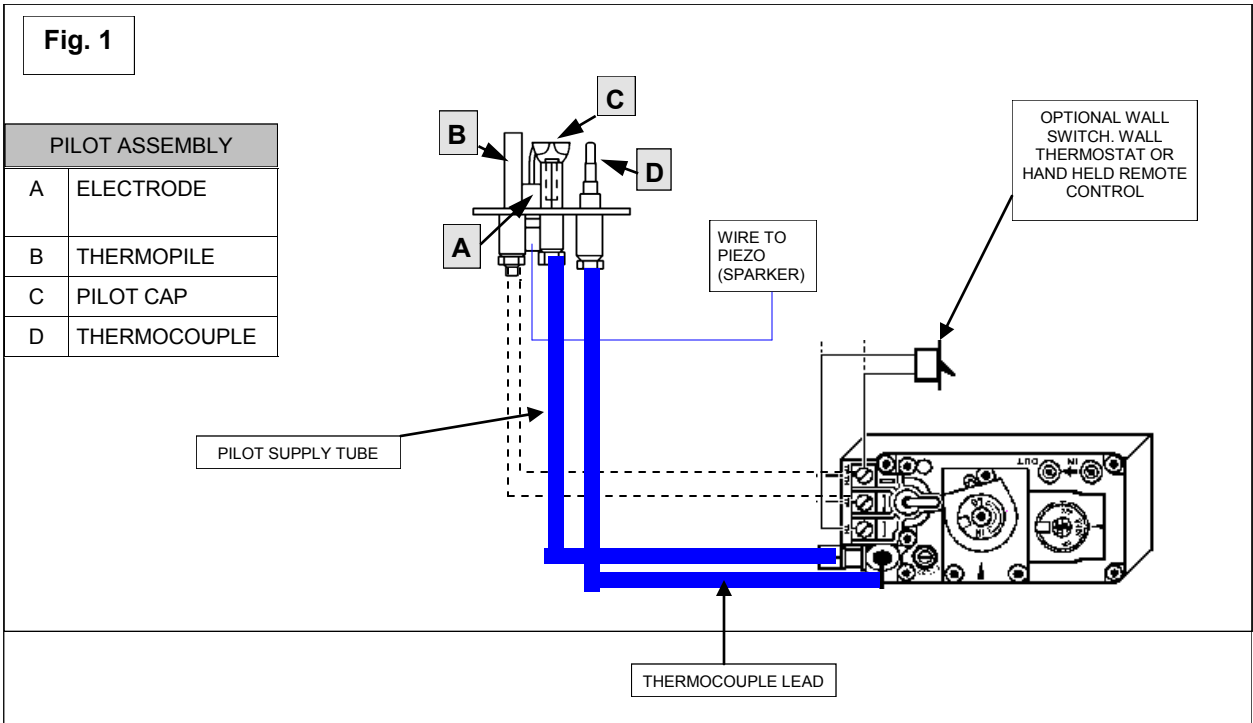
SHOWN FULLY CLOSED AND PROPERLY SET FOR NATURAL GAS. PUSH BACK ¼ FOR PROPANE GAS.

OPTIONAL WALL SWITCH OR THERMOSTAT

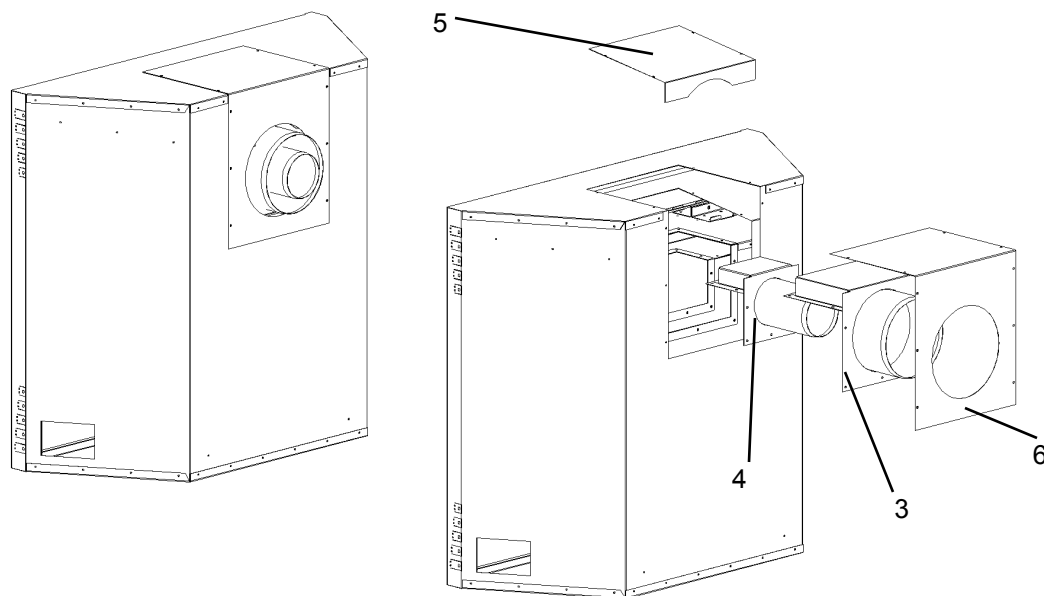
If a wall mounted switch or a wall mounted thermostat is desired, Archgard recommends that the device be wired as shown in Fig 1. This will allow the original on/off rocker switch to be used incase the device that is mounted to the wall is inoperable.  
Note: Archgard Industries does not manufacture, or sell any wall switch or wall thermostat, and will not extend warranty to them.

| Thermostat / wall switch wire table<br>Recommended Maximum Lead Length<br>for two wires |                  |
|-----------------------------------------------------------------------------------------|------------------|
| Wire Size                                                                               | Max. Length      |
| 14 GA.                                                                                  | 50 Ft. (15.24 M) |
| 16 GA.                                                                                  | 32 Ft. (9.75 M)  |
| 18 GA.                                                                                  | 20 Ft. (6.9 M)   |
| 20 GA.                                                                                  | 12 Ft. (3.65 M)  |
| 22 GA.                                                                                  | 9 Ft. (2.74 M)   |

VALVE CONNECTION for MILLIVOLT VALVE



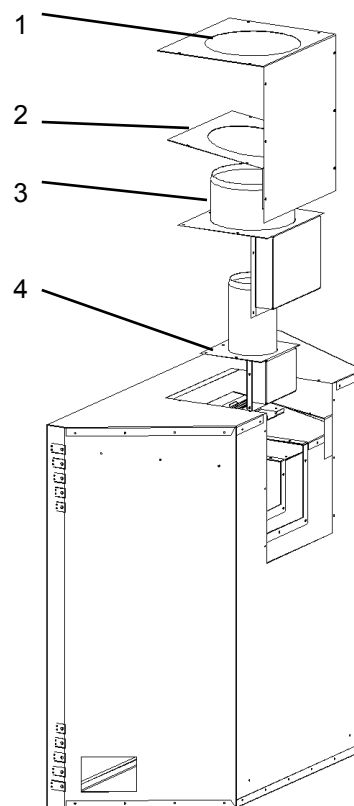
CAUTION: DO NOT CONNECT ANY AC VOLTAGE TO THE GAS VALVE.

**TOP / REAR VENT CONVERSION**

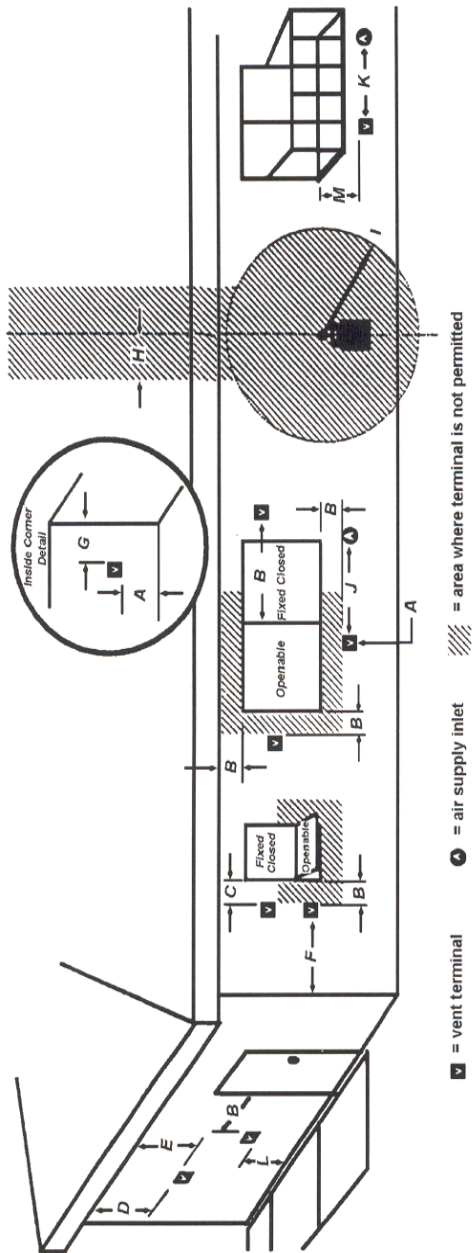
The appliance is easily converted from top vent to rear vent.

The steps for converting are as follows:

1. Remove the top vent outer shell cover (#1)
2. Remove the top vent heat shield cover (#2)
3. Remove the outer collar assembly (#3)
4. Remove the exhaust collar assembly (#4)
5. Rotate the exhaust collar assembly and the outer collar assembly to the rear vent configuration and reinstall.
6. Install rear vent heat shield cover (#5)
7. Install rear vent outer shell cover (#6)



# ALLOWABLE TERMINATION LOCATIONS



|                                                                                                                                                           | Canadian Installations (1)                                                        | US Installations (2)                         | Canadian Installations (1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | US Installations (2)                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| A= Clearance above grade, veranda, porch, deck, or balcony                                                                                                | 12 inches (30 cm)                                                                 | 12 inches (30 cm)                            | J= Clearance to non-mechanical air supply inlet to building or the combustion air inlet o any other appliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 12 inches (30 cm)<br><br>9 inches (23 cm)                                        |
| B= Clearance to window or door that may be opened                                                                                                         | 12 inches (30 cm)                                                                 | 12 inches (30 cm)                            | K= Clearance to a mechanical air supply inlet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6 feet (1.83 m)<br><br>3 feet (91 cm) above if within 10 feet (3 m) horizontally |
| C= Clearance to permanently closed window                                                                                                                 | 12 inches (30 cm)                                                                 | 12 inches (30 cm)                            | L= Clearance above paved sidewalk or paved driveway located on public property                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 7 feet (2.13 m) +<br><br>*                                                       |
| D= Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal | 21 inches from center of termination (53 cm)                                      | 21 inches from center of termination (53 cm) | M= Clearance under veranda, porch, deck, or balcony                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12 inches (30 cm) ++<br><br>*                                                    |
| E= Clearance to unventilated soffit                                                                                                                       | 21 inches from center of termination (53 cm)                                      | 21 inches from center of termination (53 cm) | (1) In accordance with the current CSA B149.1, <i>National Gas and Propane Installation Code</i><br>(2) In accordance with the current ANSI Z223.1/NFPA 54, <i>National Fuel Gas Code</i><br>(+) A vent shall not terminate directly above a side walk or paved driveway that is located between two single family dwellings and serves both dwellings<br>(++) Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.<br>(*) For clearances not specified in ANSI Z223.1/NFPA 54 or CSA B149.1, "Clearances must be in accordance with local installation codes and the requirements of the gas supplier." |                                                                                  |
| F= Clearance to outside corner                                                                                                                            | 0"                                                                                | 0"                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                  |
| G= Clearance to inside corner                                                                                                                             | 9" (22.5 cm)                                                                      | 9" (22.5 cm)                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                  |
| H= Clearance to each side of center line extended above meter/regulator assembly                                                                          | 3 feet (91 cm) within a height 15 feet (4.5 m) above the meter/regulator assembly | *                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                  |
| L= Clearance to service regulator vent outlet                                                                                                             | 6 feet (183 cm)                                                                   | *                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                  |

## INSTALLATION INSTRUCTIONS

### APPROVED VENT COMPONENTS

The appliance will not function without being connected to a proper venting system. This appliance may only use direct vent system supplied by Archgard Industries or Simpson Dura-Vent direct vent systems with the appropriate adaptor dependent upon the venting guidelines within this manual.

### VENTING CONNECTION

**For best and safe venting performance, here are some general venting rules:**

- ❖ Use only Archgard, Simpson Dura-Vent, direct vent or Selkirk Direct Temp vent components.
- ❖ Maintain a minimum of 1" (25mm) clearance to combustibles from the outside surfaces of vertical vents and minimum of 1" (25mm) sides and bottom, and 2" (50mm) from top surfaces of horizontal vents.
- ❖ Observe local code restrictions, if any, regarding the installation of this type of gas appliance.
- ❖ Observe the venting charts given in this manual.
- ❖ Use vent spacers between the inside 4" (101mm) and outside 7" (178mm) vents at 3 ft (915mm) intervals (Archgard Direct Vent System ONLY).
- ❖ Never slope horizontal vents downwards towards the vent termination.
- ❖ Terminate (Horizontally) the vent only with an approved vent termination supplied by Archgard Industries (Part # 999-DV-HTC) Simpson Dura-Vent Termination Cap or Selkirk direct temp termination cap.
- ❖ Terminate (Vertically) the vent only with Simpson Dura-Vent Vertical Termination Cap or Selkirk Direct Temp Vertical Termination Cap.
- ❖ Support horizontal vents every 3 ft (915mm) to prevent sagging.

**Please strictly follow the venting instructions for optimum performance from the appliance and to avoid sooting and/or service calls.**

## VENTING COMPONENTS

### SIMPSON DURA-VENT COMPONENTS

| DESCRIPTION                                                                | PART # | DESCRIPTION                                                                        | PART # |
|----------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------|--------|
| Horizontal Termination Kit<br>In Canada - Mandatory to add a wall thimble. | 971    | Vertical High Wind Termination Cap<br>(must be used for all vertical terminations) | 991    |
| Vertical Termination Kit                                                   | 978    | Horizontal. DV Termination with 1" return                                          | 984GL  |
| 6" Pipe Length - Black                                                     | 908B   | Horizontal. Square Termination Cap                                                 | 984    |
| 9" Pipe Length - Black                                                     | 907B   | Horizontal. Square High Wind Termination Cap                                       | 985    |
| 12" Pipe Length - Black                                                    | 906B   | Snorkel-36" Rise Termination Cap                                                   | 981    |
| 12" Pipe Length - Galvanized                                               | 906    | Wall Thimble Cover Support Box                                                     | 940    |
| 24" Pipe Length - Black                                                    | 904B   | Cathedral Ceiling Support Box                                                      | 941    |
| 24" Pipe Length - Galvanized                                               | 904    | Brass Trim fro Ceiling Support Box                                                 | 3951   |
| 36" Pipe Length - Black                                                    | 903B   | Firestop Spacer                                                                    | 963    |
| 36" Pipe Length - Galvanized                                               | 903    | Flashing 0/12 - 6/12                                                               | 943    |
| 48" Pipe Length - Black                                                    | 902B   | Flashing 7/12 - 12/12                                                              | 943S   |
| 48" Pipe Length - Galvanized                                               | 902    | Storm Collar                                                                       | 953    |
| 11" - 14 5/8" Adjustable Pipe Length - Black                               | 911B   | Vinyl Siding Standoff                                                              | 950    |
| 17" - 24" Adjustable Pipe Length-Black                                     | 917B   | Wall Strap                                                                         | 988    |
| 45° Elbow - Black                                                          | 945B   | Wall Pen Heat Shield (Wall Thimble)                                                | 942    |
| 45° Elbow - Galvanized                                                     | 945    | 90° Elbow - Black                                                                  | 990B   |
| 45° Elbow - Swivel-Black                                                   | 945BG  | 90° Elbow - Swivel-Galvanized                                                      | 990G   |
| 45° Elbow - Swivel-Galvanized                                              | 945G   | 90° Elbow - Swivel-Black                                                           | 990GB  |
| 90° Elbow - Galvanized                                                     | 990    |                                                                                    |        |

### ARCHGARD VENTING COMPONENTS

| PART #       | DESCRIPTION                                                                 |
|--------------|-----------------------------------------------------------------------------|
| 999-DV-TVK3  | Archgard Flex Vent Kit with 36" (914 mm) vent length (includes 999-DV-HTC)  |
| 999-DV-TVK5  | Archgard Flex Vent Kit with 60" (1.52 M) vent length (includes 999-DV-HTC)  |
| 999-DV-TVK10 | Archgard Flex Vent Kit with 120" (3.05 M) vent length (includes 999-DV-HTC) |
| 999-DV-HTC   | Archgard Horizontal termination head only                                   |
| 999-DV-SC    | Archgard Safety Cage for Horizontal termination head (999-DV-HTC)           |
| 999-DV-VSD   | Archgard Vinyl siding deflector                                             |
| 999-DV-SDA   | Universal Flex, Simpson Dura-Vent Adapter                                   |
| DV-GS        | Simpson Dura-Vent venting system                                            |
| 999-DV-STC   | 24" Snorkel                                                                 |

| <b>SELKIRK PARTS LIST</b>                              | <b>PART #</b> | <b>DESCRIPTION</b>                    |
|--------------------------------------------------------|---------------|---------------------------------------|
| <b><i>4" x 6 5/8" LENGTHS</i></b>                      |               |                                       |
| 1604006                                                | 4DT- 6        | DIRECT-TEMP 6" PIPE LENGTH            |
| 1604006B                                               | 4DT- 6B       | DIRECT-TEMP 6" PIPE LENGTH BLACK      |
| 1604009                                                | 4DT- 9        | DIRECT-TEMP 9" PIPE LENGTH            |
| 1604009B                                               | 4DT- 9B       | DIRECT-TEMP 9" PIPE LENGTH BLACK      |
| 1604012                                                | 4DT-12        | DIRECT-TEMP 12" PIPE LENGTH           |
| 1604012B                                               | 4DT-12B       | DIRECT-TEMP 12" PIPE LENGTH BLACK     |
| 1604018                                                | 4DT-18        | DIRECT-TEMP 18" PIPE LENGTH           |
| 1604018B                                               | 4DT-18B       | DIRECT-TEMP 18" PIPE LENGTH BLACK     |
| 1604024                                                | 4DT-24        | DIRECT-TEMP 24" PIPE LENGTH           |
| 1604024B                                               | 4DT-24B       | DIRECT-TEMP 24" PIPE LENGTH BLACK     |
| 1604036                                                | 4DT-36        | DIRECT-TEMP 36" PIPE LENGTH           |
| 1604036B                                               | 4DT-36B       | DIRECT-TEMP 36" PIPE LENGTH BLACK     |
| 1604048                                                | 4DT-48        | DIRECT-TEMP 48" PIPE LENGTH           |
| 1604048B                                               | 4DT-48B       | DIRECT-TEMP 48" PIPE LENGTH BLACK     |
| 1604082                                                | 4DT-AJ12      | DIRECT-TEMP 12" ADJ PIPE LENGTH       |
| 1604082B                                               | 4DT-AJ12B     | DIRECT-TEMP 12" ADJ PIPE LENGTH BLACK |
| 1604084                                                | 4DT-AJ14      | DIRECT-TEMP TELESCOPE ADJ LENGTH      |
| 1604084B                                               | 4DT-AJ14B     | DIRECT-TEMP TELESCOPE ADJ LEN BLACK   |
| <b><i>4" x 6 5/8" FITTINGS</i></b>                     |               |                                       |
| 1604215                                                | 4DT-EL45      | 45 DEGREE ELBOW                       |
| 1604215B                                               | 4DT-EL45B     | 45 DEGREE ELBOW BLACK                 |
| 1604230                                                | 4DT-EL90S     | 90S DEGREE ELBOW                      |
| 1604230B                                               | 4DT-EL90SB    | 90S DEGREE ELBOW BLACK                |
| <b><i>4" x 6 5/8" ACCESSORIES</i></b>                  |               |                                       |
| 1604460B                                               | 4DT-WTB       | WALL THIMBLE BLACK                    |
| 1604500                                                | 4DT-FS        | FIRESTOP SPACER                       |
| 1604502                                                | 4DT-TP        | TRIM PLATE BLACK                      |
| 1604806                                                | 4DT-VS        | VINYL SIDING STANDOFF                 |
| <b><i>4" x 6 5/8" SUPPORTS</i></b>                     |               |                                       |
| 1604400                                                | 4DT-CS        | CEILING SUPPORT                       |
| 1604424                                                | 4DT-CCS       | CATHEDRAL SUPPORT BOX                 |
| 1604430                                                | 4DT-WS/B      | WALL SUPPORT/BAND                     |
| 1604435                                                | 4DT-OS        | OFFSET SUPPORT                        |
| <b><i>4" x 6 5/8" TERMINATIONS &amp; FLASHINGS</i></b> |               |                                       |
| 1604620                                                | 4DT-VKC       | VERTICAL TERMINATION KIT              |
| 1604621                                                | 4DT-HKA       | HORIZONTAL TERMINATION KIT "A"        |
| 1604622                                                | 4DT-HKB       | HORIZONTAL TERMINATION KIT "B"        |
| 1604802                                                | 4DT-VC        | HIGH WIND VERTICAL CAP                |
| 1604804                                                | 4DT-HC        | HIGH WIND HORIZONTAL CAP              |
| 1604810                                                | 4DT-SC        | STORM COLLAR                          |
| 1604825                                                | 4DT-AF6       | ADJ FLASH 0/12-06/12                  |
| 1604830                                                | 4DT-AF12      | ADJ FLASH 6/12-12/12                  |

## VENTING INSTRUCTIONS

### REAR VENT

This appliance will not function without being connected to a proper venting system. This appliance may use 4" & 7" gas flex vents with Optima 3600 listed vent components, Selkirk (Direct-Temp) 4" x 6  $\frac{5}{8}$ " venting or Simpson Dura-Vent 4" x 6  $\frac{5}{8}$ " direct vent system with Simpson Dura-Vent adapter. Read the manufacturer's installation instructions before installing the venting system.

#### **Typical Installation (for rear vented appliance):**

- ❖ 7" (min) to 24"(max) horizontal vent run from unit to outside termination.
- ❖ One 45° elbow is allowed for corner installations (24" total length max).
- ❖ May be used with an Archgard 999-DV-SVK, 999-DV-HTC or 999-DV-STC SNORKEL.

#### **For best venting performance, here are some general venting rules:**

1. Use only vent systems and components certified for use with this appliance.
2. Maintain a minimum of 1" (26 mm) clearance to combustibles from the outside surfaces of vertical vents and minimum of 1" (26 mm) sides and bottom, and 2" (51 mm) from top surfaces of horizontal vents. Always use a wall thimble when passing through combustible construction.
3. Observe all local code restrictions, if any, regarding the installation of this type of gas appliance.
4. Observe the vent height and length restrictions given in this manual.
5. Never slope horizontal vents downwards.
6. **Maintain at least an upward slope of  $\frac{3}{4}$ " (19 mm) for every 1 ft (305 mm) of horizontal vent.**

## VENTING INSTRUCTIONS

### TOP VENT

This appliance will not function without being connected to a proper venting system. This appliance may use 4" & 7" gas flex vents with Optima 3600 listed vent components, Selkirk (Direct-Temp) 4" x 6 $\frac{5}{8}$ " venting or Simpson Dura-Vent 4" x 6 $\frac{5}{8}$ " direct vent system with Simpson Dura-Vent adapter 999-DV-SDA. Read the manufacturer's installation instructions before installing the venting system.

### Typical Installation

- ❖ 24"(min) vertical vent pipe on top of the appliance,
- ❖ One 90° elbow, and up to 24" (max) horizontal run to the outside.
- ❖ The termination required is either Archgard part# 999-DV-HTC, Simpson Dura-Vent part# 984 or Selkirk part# 4DT-HC.

### Other installations

- ❖ Up to 4 - 90° elbows, or equivalent, maximum.
- ❖ Minimum 2' (610mm) straight length between bends.
- ❖ The total vertical height up to 40' (12.2m) maximum.
- ❖ The total horizontal run up to 20' (6.1m) maximum.
- ❖ Note: 4' (1.2m) minimum of vertical height required.

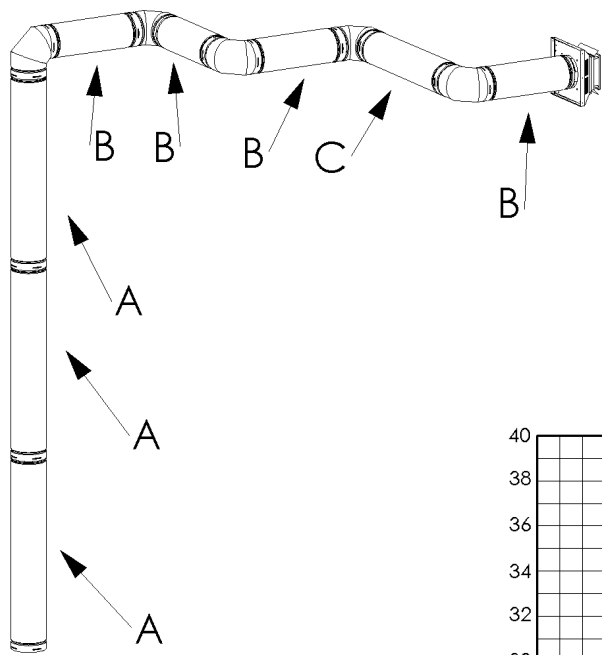
**Note: Maximum vent lengths may be subject to local codes.**

### For best venting performance, here are some general venting rules:

1. Maintain a minimum of 1" (26 mm) clearance to combustibles from the outside surfaces of vertical vents and minimum of 1" (26 mm) sides and bottom, and 2" (51 mm) from top surfaces of horizontal vents. Always use a wall thimble when passing through combustible construction.
2. Observe all local code restrictions, if any, regarding the installation of this type of gas appliance.
3. Observe the vent height and length restrictions given in this manual.
4. Never slope horizontal vents downwards.
5. Maintain at **least** an upward slope of  $\frac{1}{4}$ " (7 mm) for every 1 ft (305 mm) of horizontal vent.
6. Terminate the vent with a termination certified for use with this appliance.
7. Support horizontal vent every 3 ft (915 mm) to prevent it from sagging.

INSTALLATION INSTRUCTIONS

TOP VENT HORIZONTAL VENTING

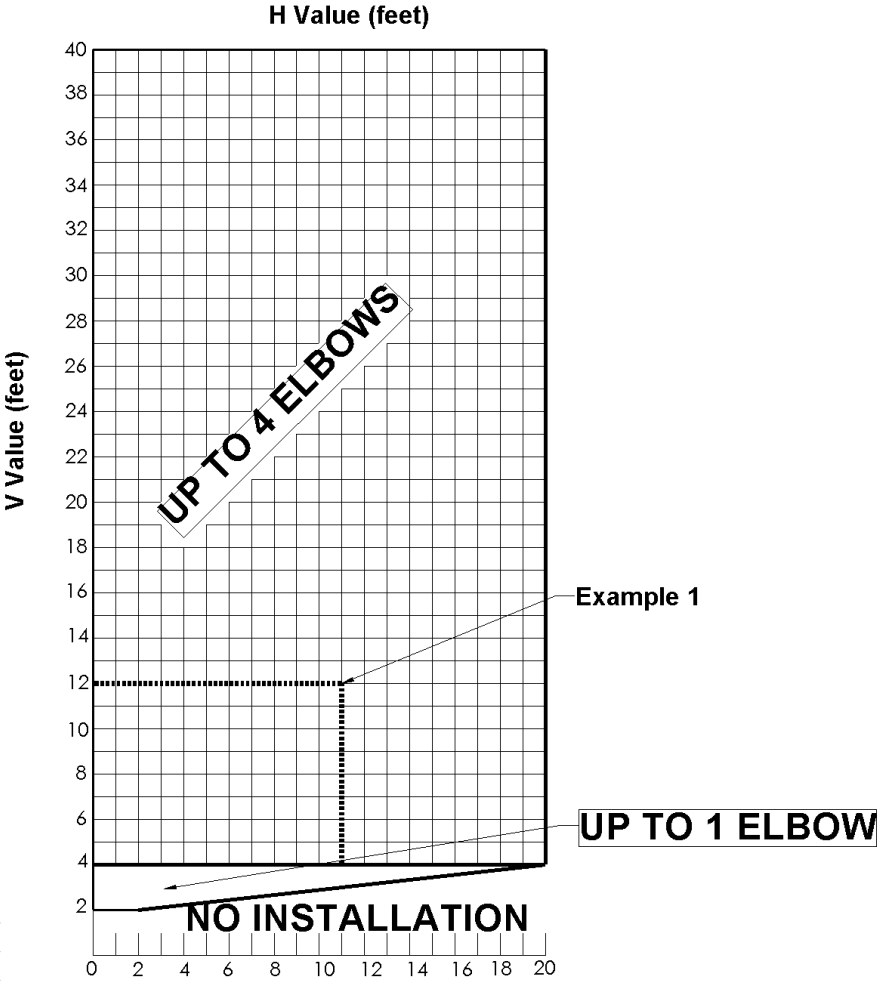
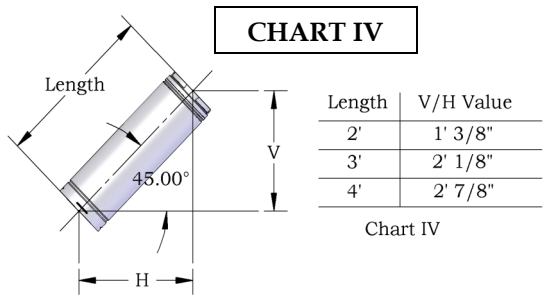


Example 1

V Value = 3A (12') = 12'  
H Value = 4B (8') + 1C (3') = 11'

V Value = Total length of all vertical sections in feet.  
H Value = Total length of all horizontal sections in feet.

- Note:**
- ❖ For H & V values for 45° venting see Chart IV
  - ❖ Elbows are not counted in H or V values
  - ❖ Vent chart starts from the top of the unit
  - ❖ No restrictors are necessary for horizontal termination applications.



# INSTALLATION INSTRUCTIONS

## TOP VENT VERTICAL VENTING

### Example 1

$$V \text{ Value} = 3A (12') + 1C (3') = 15'$$

$$H \text{ Value} = 2B (4') = 4'$$

**V Value** = Total length of all vertical sections in feet.

**H Value** = Total length of all horizontal sections in feet.

### Note:

- ❖ For H & V values for 45° venting see Chart IV
- ❖ Elbows are not counted in H or V values
- ❖ Vent chart starts from the top of the unit

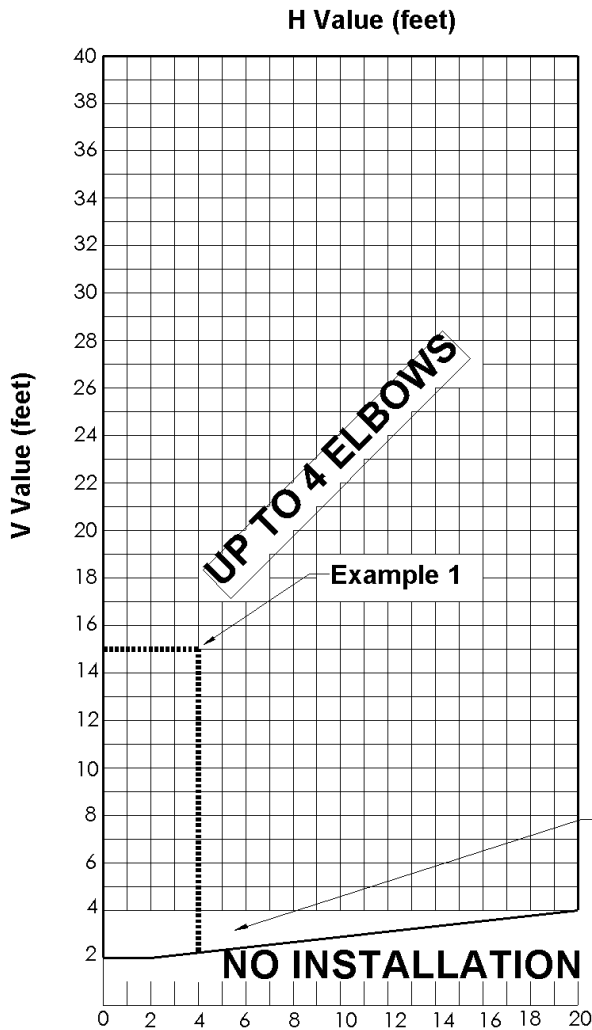
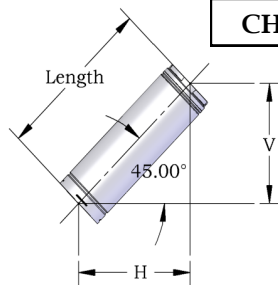
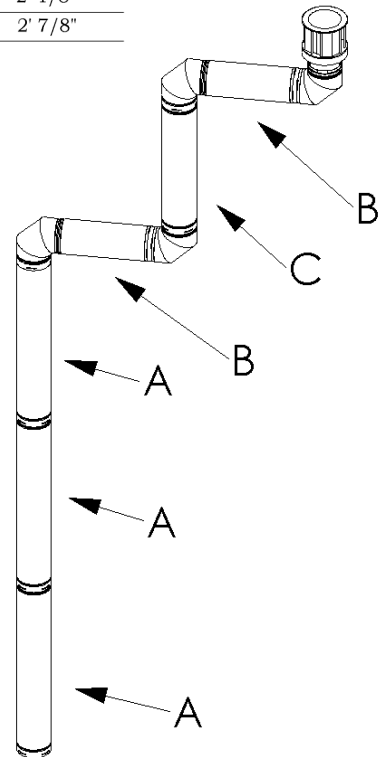


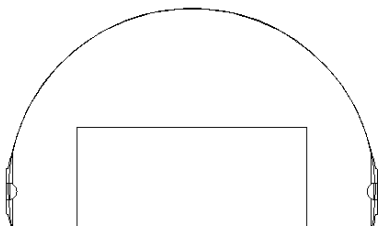
**CHART IV**



| Length | V/H Value |
|--------|-----------|
| 2'     | 1' 3/8"   |
| 3'     | 2' 1/8"   |
| 4'     | 2' 7/8"   |



### Restrictor #1



### VENT RESTRICTORS FOR TOP VENT INSTALLATIONS

All top vent installations require the use of Restrictor #1 (40%). The restrictor is installed in the exhaust of the appliance.

The rear vent configurations do not require a vent restrictor.

## OPERATION INSTRUCTIONS

### FOR YOUR SAFETY, READ BEFORE LIGHTING

#### INITIAL OPERATION

- ❖ Check that the appliance is properly vented and connected to the gas supply.
- ❖ Check the logs and branches are properly placed.
- ❖ Check all external parts, such as grills, door and control cover are properly attached and fastened.

**NOTE:** When operated for the first few times, the appliance will emit some odor and fumes. This is due to the evaporation of oils and solvents used in fabricating the appliance. Close off the room to the rest of the house and open all windows. Keep the room well ventilated.

**WARNING:** If you do not follow these instructions exactly, a fire or explosion may result, causing property damage, personal injury or loss of life.

- A.** This appliance has a pilot which must be lit by hand using the sparker located next to the appliance valve controls. When lighting the pilot, follow the start-up procedures exactly.
- B.** BEFORE LIGHTING, smell all around the appliance area for gas. Be sure to smell next to the floor, because some gases are heavier than air and will settle on the floor. IF YOU SMELL GAS, follow the instruction on the front cover of this manual.
- C.** Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D.** Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

## OPERATION INSTRUCTIONS

### START-UP PROCEDURE

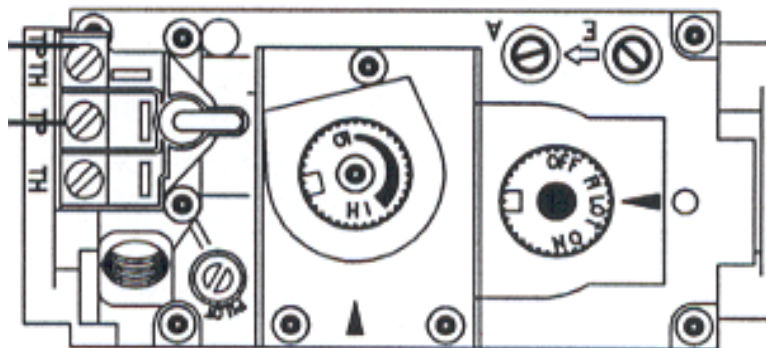
1. Set the thermostat, if present, to the lowest level. Set the remote switch to the **OFF** position. Set the flame adjustment knob to the **HI** position. Press slightly and turn the control knob clockwise ↻ to the **OFF** position and wait 5 minutes; thus allowing any gases to escape which may have accumulated in the combustion chamber.  
**Note:** LP gases do not vent upward. Then follow step 2 and 3 to establish pilot.
2. Press slightly and turn control knob counterclockwise ↻ to **PILOT** position; depress control knob and light pilot by repeatedly pressing the sparker. Venting of air may take place at the pilot prior to the flow of fuel gases. Once flame is established, hold knob depressed in the PILOT position for approximately 60 sec.
3. Release knob. If pilot should go out, turn the control knob to **OFF** position and repeat steps 1, 2 and 3. **Note:** this will allow reset of INTERLOCK for proper lighting of pilot.
4. Once the pilot is established, press and turn control knob counterclockwise ↻ to **ON** position.
5. Turn thermostat to the desired comfort level or turn the ON/OFF switch to the **ON** position.
6. Turn flame and fan adjustment knob to the desired comfort level using HI / LOW knob.

### TEMPORARY SHUT-DOWN PROCEDURE

To turn off the main burner only, set the thermostat to the lowest setting or turn remote switch to **OFF**. Press and turn the knob clockwise ↻ to **PILOT** position.

### COMPLETE SHUT-DOWN PROCEDURE

Press and turn the knob clockwise ↻ to the **OFF** position.



## MAINTENANCE

**CAUTION:** Do not conduct maintenance on the appliance while it is operating or while hot

### CLEANING THE APPLIANCE

The exterior surfaces and glass may be cleaned with a soft, non-abrasive cloth and water or a suitable, mild, non-abrasive cleaner.

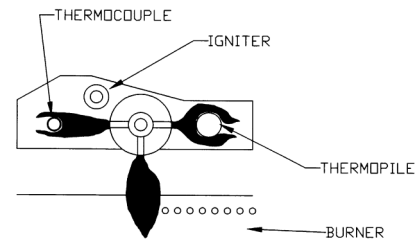
#### Regularly:

- ❖ Clean and remove any lint accumulations or debris from the grills and in any combustion and convection air passage ways.
- ❖ Keep the appliance area free from combustible materials, such as paper, wood, clothing, gasoline and flammable solids, liquids and vapors.
- ❖ Check for unusual noise, odor and operation of the appliance.
- ❖ Check the vent terminal for any damage, or obstruction by plants or debris accumulation.
- ❖ Visually check the height and color of the burner and pilot flames.

#### MAIN FLAME



#### PILOT FLAME



#### Once a year:

- ❖ Remove the glass door and clean the inside of the glass with a soft, non-abrasive cloth and water or a suitable, mild, non-abrasive cleaner.
- ❖ Carefully remove the logs and gently brush off any loose carbon deposits. This job is best done outside the house, wearing a dust mask. The logs are very fragile, take care not to break them. After cleaning, the logs must be replaced as per the instructions in this manual.

#### Once a year, have a qualified service technician:

- ❖ Completely inspect the appliance and the venting system.
- ❖ Clean and remove any lint accumulations or debris in the firebox, on the burners, on the pilot, at the primary air opening, on the convection air blower and in any combustion and convection air passage ways.
- ❖ Check the safety system of the gas valve.

**WARNING :** All parts removed or disturbed must be properly replaced after maintenance. Service and repair must be conducted by a qualified service person. If these instructions are not followed, a fire or explosion may result, causing property damage, personal injury or loss of life

## TROUBLESHOOTING

Please check to make sure the instructions are followed exactly before attempting trouble shooting of the appliance.

**WARNING:** Troubleshooting and servicing of gas and electrical devices of the appliance should only be conducted by a qualified service technician.

| SYMPTOM                                                     | ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pilot will not light after pressing the sparker many times. | <ol style="list-style-type: none"> <li>1. When lighting the appliance for the first time after installation or after servicing, there is air in the gas line. It takes a while for all the air to purge out of the pilot before gas can reach the pilot and ignite. Remove the glass door and try lighting the pilot many times to purge the air.</li> <li>2. Check to make sure the gas supply to the appliance is turned on and there is adequate gas supply pressure to the appliance.</li> <li>3. Check for sparks between the spark electrode and the pilot head when the sparker is pressed. If there are no sparks,               <ol style="list-style-type: none"> <li>a. Check for broken or poor connection from the sparker to the electrode.</li> <li>b. Check for the spark shorting or arcing at other locations.</li> <li>c. Check for defective sparker.</li> <li>d. Check for defective spark electrode.</li> </ol> </li> <li>4. With the door removed, try lighting the pilot with a match.               <ol style="list-style-type: none"> <li>a. If air is blowing on the flame of the match, hold the control knob in at the '<b>PILOT</b>' setting until all the air is purged out of the line.</li> <li>b. If there is no gas or air coming out of the pilot and there is gas pressure to the appliance, the pilot orifice may be blocked or the gas valve may be defective.</li> </ol> </li> </ol> |
| Pilot will not remain on after being lit.                   | <ol style="list-style-type: none"> <li>1. Press the control knob all the way in.</li> <li>2. Hold the control knob in for a longer period of time.</li> <li>3. If you are trying to re-light the pilot immediately after you have shut-off the pilot, you have to wait 5 minutes for the valve to reset.</li> <li>4. Check to see if the pilot flame is large enough to reach and surround the thermocouple. If the flame is too small, check for correct gas supply pressure. If pressure is good, adjust the pilot flame size with the adjustment screw on the valve. If the flame cannot be adjusted, there might be some debris obstructing the pilot orifice, or a wrong size pilot orifice.</li> <li>5. Check for poor connection of the thermocouple to the valve.</li> <li>6. Check for proper millivolts of the thermocouple. The thermocouple should generate at least 30 mV or it is defective.</li> <li>7. Check for defective gas valve.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| The main burner does not turn on with the pilot lit.        | <ol style="list-style-type: none"> <li>1. Check to make sure the control knob is turned to the '<b>ON</b>' position.</li> <li>2. Allow enough time for the pilot to heat up the thermopile to generate sufficient voltage to activate the valve.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## TROUBLESHOOTING

| SYMPTOM                                                           | ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The main burner does not turn on with the pilot lit. (cont'd)     | <ol style="list-style-type: none"> <li>3. Check to make sure the thermostat is set high enough to turn on the appliance.</li> <li>4. Check that the remote switch or the thermostat is turned on.</li> <li>5. Check for weak pilot flame. If flame is weak, check gas supply, check pilot flame adjustment and check for blockage of pilot orifice.</li> <li>6. Check all connections to the valve for tight electrical contact.</li> <li>7. Check for 400-500 mV from the thermopile with the burner off and 200-250 mV with the burner on. If the voltages are lower, the thermopile is defective.</li> <li>8. Check for defective gas valve.</li> </ol> |
| The main burner shuts off when the appliance is warm.             | <ol style="list-style-type: none"> <li>1. This may be the normal operation of a wall thermostat installed to appliances.</li> <li>2. Check for good pilot flames on the thermopile (see page 30).</li> <li>3. Check for good voltage from the thermopile.</li> <li>4. Check for proper functioning of venting system.</li> <li>5. Check wire connections. Expansion from heat affects a loose connection</li> </ol>                                                                                                                                                                                                                                        |
| Sooty deposits on the glass door.                                 | <ol style="list-style-type: none"> <li>1. If the flame is yellow and lazy, check for lint etc. around primary air shutter. Increase primary air by opening the primary air shutter if necessary.</li> <li>2. Check for proper placement of the logs and branches. Ensure logs and burner are clean. See that section in the instruction manual.</li> <li>3. Check for obstruction of the burner ports by the embers. See that section in the instruction manual.</li> <li>4. Check for proper venting and blockage of the vent termination.</li> <li>5. Check manifold pressure and clock input rating for over-firing.</li> </ol>                         |
| Sharp blue flames with flames lifting off the burner at the ends. | <ol style="list-style-type: none"> <li>1. Too much primary air. Reduce primary air by closing the primary air shutter. During cold temperatures, some flame lifting may occur during start-up.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Convection blower does not turn on.                               | <ol style="list-style-type: none"> <li>1. The convection fan is thermostatically controlled. It will only turn on when the appliance is warmed-up. This may take up to 15 minutes with the appliance on high.</li> <li>2. Check for 120VAC electrical supply to the appliance. (Is the cord plugged in?)</li> <li>3. Check for proper mounting of the thermal snap disc.</li> <li>4. Check electrical connections.</li> <li>5. Check for defective thermal snap disc.</li> <li>6. Check for defective convection blower speed controller.</li> <li>7. Check for defective convection blower.</li> </ol>                                                    |

## SERVICING

### SERVICING UNDER WARRANTY

Before servicing, read the terms and conditions of the Archgard warranty at the back of the manual. Contact the authorized Archgard dealer which you purchased the appliance from and provide them with details of the problem and the installation information that the installer filled out at the back of the manual.

**WARNING:** Servicing of this appliance must be conducted by a qualified service technician. Improper servicing, adjustment or alteration of this appliance may cause property damage, personal injury or loss of life. All servicing should be conducted with the appliance cold.

### ADJUSTING PRIMARY AIR

- ❖ Open the valve cover door to gain access to the shutter.
- ❖ Loosen the primary air shutter screw, found on the firebox bottom (**Caution, make sure unit is not hot as burns may result**)
- ❖ Sliding the shutter lever forward decreases aeration while sliding the lever to the back increases aeration.
- ❖ Tighten screw.



### CHANGING MAIN BURNER ORIFICE

- ❖ Remove the glass door, embers, coals and firebox liner panels.
- ❖ Remove the 4 screws holding the burner tray and remove it. Remove the 2 screws holding the burner and lift it out.
- ❖ Use a 1/2" wrench to unscrew the orifice while holding the elbow with a 9/16 wrench.
- ❖ Change the orifice. Do not over tighten. Remove spring from old orifice and put onto new one.
- ❖ Replace all parts in reverse order and properly set the primary air shutter according to the specifications. See picture above showing fully closed. Push lever to rear to open shutter.
- ❖ Check for leaks.

### CHECKING INLET & OUTLET GAS PRESSURE

- ❖ The pressure test taps are located on the valve.
- ❖ The taps are located in the front. The inlet is marked 'IN' and the outlet is marked 'OUT'. There is also an arrow marking the direction of gas flow.
- ❖ Loosen the set screw inside the tap with a 1/8" wide flat screw driver.
- ❖ Connect a 1/4" rubber tube to the tap and a pressure gauge.
- ❖ Be sure to tighten the set screw inside the tap after you are finish taking pressure readings.

## SERVICING

### REPLACING MAJOR GAS COMPONENTS

If any of the major gas components need to be replaced, such as the pilot or the gas valve, we recommend replacing the complete gas component assembly. The assembly is designed to be quickly and easily replaced with minimal inconvenience to the customer. Once replaced, the service technician can repair the defective assembly safely and comfortably in his shop and with the right tools and test equipment. We encourage our authorized dealers to keep a few replacement gas component assemblies at hand for quick servicing.

#### Replacing Gas Component Assembly

- ❖ Disconnect electricity to the appliance.
- ❖ Shut off the gas supply to the appliance and disconnect the gas line to the appliance.
- ❖ Remove the glass door, logs, coals and burner.
- ❖ Disconnect the two wires at the front of the valve from the on/off switch.
- ❖ Remove the fan speed control (rheostat) from the control panel.
- ❖ Remove the screws holding the gas component assembly to the appliance firebox bottom.
- ❖ Gently lift the assembly out and remove through the front.
- ❖ Replacing the assembly is the reverse of the above instructions.

\* Check the tray sealing gasket. Replace if damaged.

### FUEL CONVERSION PROCEDURE

Please refer to instruction sheet included with the Conversion Kit. Part # CK-LP-3600

## IMPORTANT INFORMATION

**\* Please have the installer fill out the installation information for warranty and future reference.**

| APPLIANCE      |                                                                   |  |               |
|----------------|-------------------------------------------------------------------|--|---------------|
| MODEL NUMBER   | 3600-DVTR24N Top / Rear                                           |  | SERIAL NUMBER |
| GAS TYPE       | <input type="checkbox"/> NATURAL GAS <input type="checkbox"/> LPG |  | VALVE TYPE    |
| DATE PURCHASED | /       /                                                         |  | SIT 820 Nova  |

| OWNER           |  |
|-----------------|--|
| NAME            |  |
| ADDRESS         |  |
| CITY            |  |
| STATE / PROV.   |  |
| COUNTRY         |  |
| ZIP / POST.CODE |  |
| PHONE NUMBER    |  |

| RETAILER     |  |
|--------------|--|
| COMPANY NAME |  |
| ADDRESS      |  |
| PHONE NUMBER |  |

| INSTALLER    |  |
|--------------|--|
| COMPANY NAME |  |
| ADDRESS      |  |
| PHONE NUMBER |  |

| INSTALLER            |                                                                   |                        |         |
|----------------------|-------------------------------------------------------------------|------------------------|---------|
| INSTALLER NAME       |                                                                   | DATE INSTALLED         | / /     |
| GAS TYPE             | <input type="checkbox"/> NATURAL GAS <input type="checkbox"/> LPG | GAS SUPPLY PRESSURE    | in.w.c. |
| VENT VERTICAL HEIGHT | ft.                                                               | VENT HORIZONTAL LENGTH | ft.     |

|               |  |
|---------------|--|
| MODIFICATIONS |  |
|---------------|--|

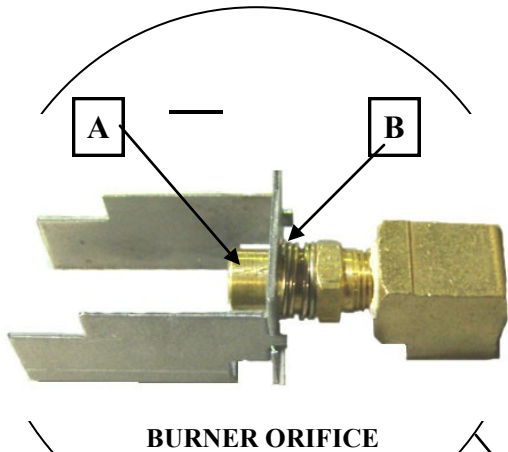
**Signature of Installer:** \_\_\_\_\_ **Date:** \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
mm dd yyyy

|                          |
|--------------------------|
| <b>REPLACEMENT PARTS</b> |
|--------------------------|

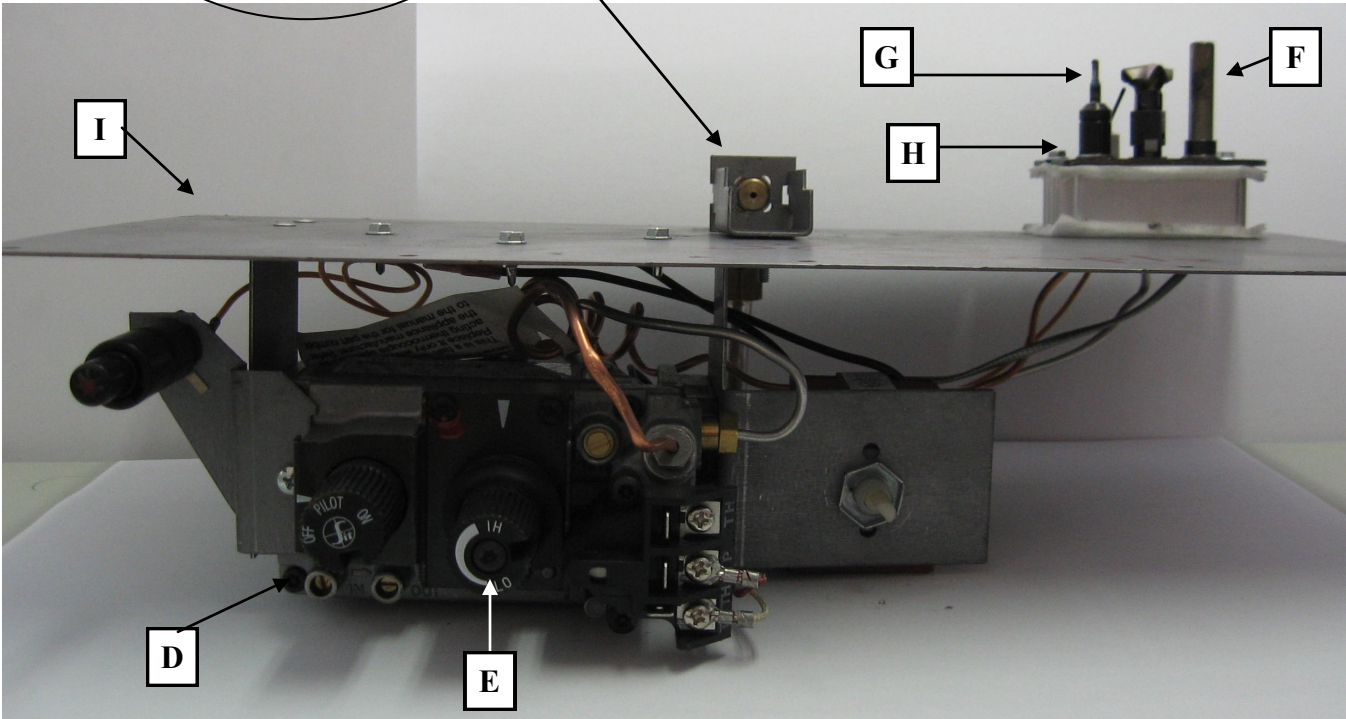
| LOCA-TION | Part #      | Description                                                              | QTY | Unit |
|-----------|-------------|--------------------------------------------------------------------------|-----|------|
|           | 200-1905    | OWNER'S MANUAL, OPTIMA 3600 DVT / DVR                                    | 1   | EA   |
| A         | 301-0077    | ORIFICE, MALE #54 for PROPANE - DRILL TO #54                             | 1   | EA   |
| A         | 301-0077    | ORIFICE, MALE #43 for NATURAL GAS - DRILL TO #43                         | 1   | EA   |
|           | 307-0056    | GLASS, CERAMIC (22 3/8" x 33 1/8")                                       | 1   | EA   |
| D         | 308-0013    | SIT VALVE (NG)                                                           | 1   | EA   |
| E         | 308-0035    | SIT PROPANE REGULATOR                                                    | 1   | EA   |
| F         | 308-0056    | THERMOPILE ONLY 750 MV 18"                                               | 1   | EA   |
| H         | 308-0093    | PILOT ASSEMBLY, PSE CONVERTIBLE c/w THERMOPILE, THERMOCOUPLE & ELECTRODE | 1   | EA   |
|           | 310-63600-2 | LOG LEFT FRONT                                                           | 1   | EA   |
|           | 310-63600-6 | LOG FRONT CENTER                                                         | 1   | EA   |
|           | 310-63600-3 | LOG RIGHT REAR                                                           | 1   | EA   |
|           | 310-63600-1 | LOG REAR                                                                 | 1   | EA   |
|           | 310-63600-5 | LOG LEFT REAR                                                            | 1   | EA   |
|           | 310-63600-4 | LOG FRONT RIGHT                                                          | 1   | EA   |
|           | CK-LP-3600  | CONVERSION KIT-NATURAL GAS TO PROPANE (OPTIONAL KIT)                     | 1   | EA   |
| J         | 305-0021    | THERMODISC, 110° FAN SENSOR                                              | 1   | EA   |
| K         | 305-0024    | FAN, CROSSFLOW                                                           | 1   | EA   |
| L         | 305-0013    | FAN, RHEOSTAT                                                            | 1   | EA   |
|           | 314-0009    | DOUBLE TADPOLE WINDOW TAPE - 111.5 INCHES                                | 1   | EA   |
| B         | 300-0137    | ORIFICE SPRING                                                           | 1   | EA   |
| G         | 308-0057    | THERMOCOUPLE, PSE QDO                                                    | 1   | EA   |
|           | 310-0020    | BLACK EMBERS                                                             | 1   | EA   |
| C         | 843-0051    | BURNER PAN                                                               | 1   | EA   |
| I         | 843-0102    | VALVE TRAY, NATURAL GAS, COMPLETE                                        | 1   | EA   |
| I         | 843-0103    | VALVE TRAY, PROPANE, COMPLETE                                            | 1   | EA   |

Parts can be ordered through your local dealer or distributor by giving Part # and Description

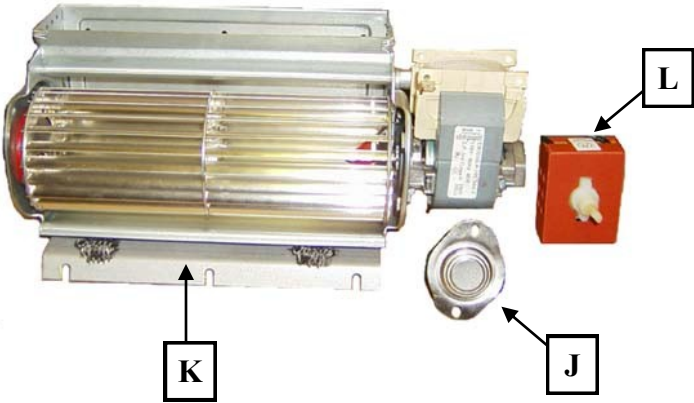
REPLACEMENT PARTS



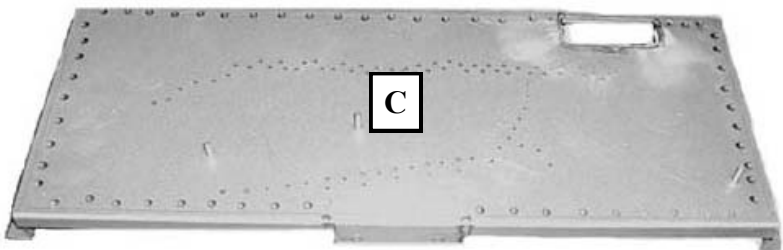
BURNER ORIFICE



FAN



BURNER PAN



This Limited Warranty is made by ARCHGARD INDUSTRIES LTD., hereinafter referred to as "Archgard". Archgard warrants to the original purchaser of an Archgard gas burning fireplace (s) that the product will be free of defects in materials and workmanship under normal use and service, for a "lifetime".

**INCLUSIONS: "LIFETIME LIMITED WARRANTY"**

- ❖ All heat exchangers, combustion chamber, burner tubes and pans.
- ❖ Ceramic Fiber Logs and Ceramic Brick Panels against splitting or cracking.
- ❖ Ceramic Glass against thermal breakage.
- ❖ All 24 K gold trims and accessories against tarnishing.
- ❖ All trim accessories against tarnishing and paint defects.
- ❖ NOTE: Discoloration and some minor movement of certain parts are normal and are not a defect and therefore, not covered under warranty.

The above will be covered "parts & labor" to the original purchaser for FIVE years and "parts" only thereafter from original date of purchase.

**INCLUSIONS: "FIVE YEAR LIMITED WARRANTY"**

- ❖ Five year limited warranty on the "FiberFlame Technology Burner System." Warranty will cover any defective burner and ceramic ember bed if defect is deemed as original by the manufacturer.

The above will be covered "parts & labor" to the original purchaser for TWO years and "parts" only thereafter from original date of purchase.

**INCLUSIONS: "ONE YEAR LIMITED WARRANTY"**

- ❖ Blowers, fans and fan motors, wiring, rheostats and thermostats.
- ❖ Rocker switches, spill switches and wiring to them.
- ❖ Gas control valves, pilot assemblies including thermopiles, thermocouples, electrodes, and igniters.

The above will be covered "parts & labor" to the original purchaser for ONE year from date of purchase.

**EXCLUSIONS:**

- ❖ Archgard does not offer wall mounted thermostats, programmable thermostats (wiring for hook-up of said product), handheld remote controls, fireplace mantel (s), trims or tiles.
- ❖ Ember material.
- ❖ Tempered Glass is under warranty for ONE year to the original purchaser from date of purchase.
- ❖ Travel time or mileage to original purchaser's residence. Archgard suggests that you pre-arrange travel expenses with your Authorized Archgard Dealer.

**WHAT TO DO IN THE EVENT OF A PROBLEM:**

- ❖ Thoroughly read your manual.
- ❖ If you cannot solve the problem, contact your Archgard Dealer or representative.
- ❖ When calling for help please have the following information:

|                                |                            |                          |
|--------------------------------|----------------------------|--------------------------|
| <b>Model of your Fireplace</b> | <b>Serial Number</b>       | <b>Place of Purchase</b> |
| <b>Date of Purchase</b>        | <b>Problem Description</b> |                          |

- ❖ NOTE: Warranty may be void if work is carried out by an unqualified person (s). Only original Archgard parts may be used. Please consult your Archgard dealer or representative if in doubt about a replacement part (s).

**OBTAINING WARRANTY SERVICE:**

To obtain warranty service, the original purchaser shall return the defective part (s) to the original authorized Archgard selling dealer transportation prepaid, along with the serial number of the appliance and proof of purchase. Any defective part, in our judgment, will be repaired or replaced at Archgard's discretion. The dealer must obtain approval from Archgard before any repairs are made.

**WARRANTY LIMITATION:**

THIS LIMITED WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED AS TO QUALITY, MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

The appliance is only warranted for the use as intended by the installation and operating instruction and local building codes. The warranty will not cover damage due to accident, misuse, abuse, alteration, improper installation or "Acts Of God".

This limited warranty is void unless the appliance is installed by a qualified installer, in accordance with the instructions furnished with the appliance. Some Provinces or States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to the original purchaser. Any damage resulting from defects in this product, is limited to the replacement of the defective part (s) and does not include incidental and consequential exposures sustained in connection with the product. This includes facing (s), mantle (s), cabinet (s), tile (s) or any other finishes resulting from removal of any gas appliance. This warranty is limited to residential use only and gives the consumer specific rights. These rights may vary from State to State or Province to Province.



POSTAGE

## WARRANTY REGISTRATION

**ARCHGARD INDUSTRIES LTD.  
7116 BEATTY DRIVE  
MISSION, B.C. CANADA  
V2V 6B4**

FOLD DOWN AT LINE

FOLD DOWN AT LINE & TAPE CLOSED

Model # : **3600-DVTR24N** Serial #: \_\_\_\_\_ Date Installed: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
mm dd yyyy

Name: \_\_\_\_\_ Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Prov: \_\_\_\_\_ ZIP: \_\_\_\_\_ Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

Dealer's Name & Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Prov: \_\_\_\_\_ ZIP: \_\_\_\_\_ Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

Installer's Name & Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Prov: \_\_\_\_\_ ZIP: \_\_\_\_\_ Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

Why did you choose this product? \_\_\_\_\_

*Thank you for purchasing our product and filling out this warranty card.*



**ARCHGARD INDUSTRIES LTD.**

7116 BEATTY DRIVE  
MISSION, B.C. V2V 6B4  
CANADA

WEBSITE: [WWW.ARCHGARD.COM](http://WWW.ARCHGARD.COM)